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ROCKS & MINERALS

PETER ZODAC, Editor and Publisher

America's Oldest and Most Versatile Magazine for the Mineralogist, Geologist, Lapidary.

Published Bi-Monthly

OFFICIAL JOURNAL

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CHIPS FROM THE QUARRY

Merry Christmas and a Happy New Year

The Editor extends to each and everyone of our subscribers, advertisers, readers and friends, a Merry Christmas and a Happy New Year. May 1959 prosper each and everyone of you abundantly, socially and financially is our sincere wish.

Why World News has been missing!

Due to the large number of articles that have been received and await printing, we have been forced to suspend World News on Mineral Localities for a few issues. We hope to reinstate this interesting feature in the next issue (January-February 1959).

Photo on the Cover

The photo on the cover of this issue was sent in by Dick Tripp, 250½ Campus, Ames, Iowa. The photo (life size) is of a beautiful Paradoxides gracilis trilobite from the Cambrian age shales in Bohemia, Europe.

THE AMATEUR LAPIDARY, CAPTAIN GEORGE W. OWENS—ANNOUNCES THE BIRTH OF HIS SON, JOHN WILLIAM OWENS. Born 9 September 1958. Wt. 6 lbs., 14 oz. Mother and Baby doing fine. Father almost recovered. Calls afternoon and evenings only, please.

A Plea for a young blind girl!

Editor R&M:

Last summer enroute to the west, I met a little girl on the train who collects minerals. The unusual thing was that the young lady is blind from cancer of both eyes. She collects minerals that she can recognize by their feel, taste, smell, etc. The pity of it is that she is a bright youngster. Her mother reads books about minerals to her, and she can rattle off a lot of dope that would make some rockhounds blush.

I am wondering if you could run a line or two suggesting that if any collectors would care to send her some of their duplicate material, that it would be a wonderful thing to do. Her name is Miss Mary May (age about ten), her address: 921 Redwood Drive, Green Bay, Wisconsin. I fear that because of the nature of her trouble she may not have too long to live.

Dr. Richmond E. Myers
Prof. of Geology and Geography
Moravian College
Bethlehem, Pa.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, AND MARCH 3, 1933, OF ROCKS and MINERALS, published BI-MONTHLY, at PEEKSKILL, N. Y., OCTOBER 1st, 1958.

1. The name and address of the publisher, editor, and managing editor, and business manager is **PETER ZODAC, PEEKSKILL, N. Y.**

2. That the owner is: **PETER ZODAC, PEEKSKILL, N. Y.**

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: **NONE.**

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholders or security holders appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given: also that the said two paragraphs contain statements embracing affidavit's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affidavit has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

PETER ZODAC

Sworn to and subscribed before me this 1st day of October, 1958. My Commission expires March 30, 1959.
ROSE McCAFFREY

The Chemical Elements In Nature

By JOHN S. ALBANESE
P.O. Box 221, Union, N. J.

The tiny atom is mightier than man. Let man beware of the power of the atom. It is conceivable that these tiny atoms, if not left to function as Nature intended, might eventually destroy all living organisms on the face of the earth. Nature was planned by a Creator for man to enjoy, not destroy. Man can discover or create new elements, but life in organisma he cannot give or manufacture. All he has succeeded in creating is a means to total destruction of life on earth.

Elements are units of matter indivisible by ordinary chemical means, of which all substances are made. These elements combine among themselves to form compounds. There are 92 naturally occurring elements in Nature. Others, such as polonium, radon, have been created in the laboratory, chiefly through radioactive research and by artificial means. These are not natural elements.

Among the elements we are familiar with are oxygen, hydrogen, nitrogen, aluminum, iron, copper, lead, zinc, gold, carbon, sulfur, silver, uranium and so on. All matter on the earth, whether it be rocks, minerals, animals, plants, birds or insects is made up of atoms of the chemical elements. So are all the streams, rivers, seas and oceans. Even the atmosphere is made up of atoms of the chemical elements, as hydrogen, oxygen, nitrogen, helium, argon and other rare gases. The loftiest mountain and the tiniest insect are made up of atoms of the chemical elements.

A *chemical element* is a substance which consists of atoms of the same kind. For instance, the element oxygen consists of oxygen atoms only. A *chemical compound* is a substance whose molecules consist of atoms of two or more different elements. A *molecule* is the smallest physical unit of a substance and is represented by a formula. Thus, a molecule of water is expressed as H_2O, meaning that each molecule of water has two atoms of hydrogen and one atom of oxygen. Similarly, a molecule of quartz is expressed as SiO_2, meaning that each molecule of quartz has one atom of silicon and two atoms of oxygen. The molecule of calcite (calcium carbonate) is expressed as $CaCO_3$, meaning that each molecule of calcium carbonate has one atom of calcium, one atom of carbon and three atoms of oxygen.

Atoms are very small indeed, and cannot be seen even with the aid of the most powerful microscope. Forty million molecules of water in a straight line and in contact with one another would scarcely measure one inch in length. Atoms of all the elements have essentially the same structure—that is, all atoms have a nucleus at the center and this nucleus has a positive electrical charge. Surrounding this nucleus are negatively charged particles called electrons, which travel around the nucleus as the planets travel around the sun. Atoms, though having the same essential structure, are not all of the same size, or weight. Hydrogen atoms are the lightest, uranium atoms are the heaviest.

The accepted theory of the atom was developed after the facts of radioactivity became established. According to this theory, the atom is a miniature solar system with a definite number of positively electrical charged particles (protons) very closely compacted in a central nucleus. Associated with these protons in the nucleus are particles of approximately proton mass (neutrons). Surrounding the nucleus at relatively great distances are a number of negatively charged electrons equal exactly in number to the positively charged particles (protons) in the nucleus. The simplest atom is hydrogen, which is made up of a single proton and a single electron. The most complex atom is uranium.

$Uranium_{235}$ has a nucleus consisting of 92 protons and 143 neutrons, and this

nucleus is surrounded by 92 electrons. If we add the number of protons and neutrons in a given atom, the sum is the atomic weight of that atom. Thus, if we add the protons and neutrons in the above uranium atom, we get 235, which is the atomic weight of this particular uranium atom. There are other uranium atoms having different atomic weights. The atoms of the same element having different atomic weights are called isotopes; the only difference being the number of neutrons in the nucleus.

The atoms of any element have a definite number of protons equal in number to the number of electrons. Thus, hydrogen has one proton and one electron; helium has two protons and two electrons; lithium has three protons and three electrons; beryllium has four protons and four electrons, and so on. Elements are given atomic numbers corresponding to the number of electrons in their atoms. Hydrogen, with one electron, is given the atomic number 1 (one); helium, with two electrons, is given the atomic number 2; lithium, with three electrons, is given the atomic number 3; beryllium, with four electrons, is given the atomic number 4. And so on until we reach uranium with 92 electrons. This element is given the atomic number 92.

So small are the three units of the atom (protons, neutrons, electrons) that the atom is mostly space. So is the solar system (our earth planet is about 93 million miles from the sun). If we could picture in our minds an atom about the size of a room—say the living room in our home, the nucleus would appear about the size of a small glass bead, placed exactly in the center of the room. Surrounding this bead are the electrons, so small they are invisible. Each electron circles around the nucleus at tremendous speeds, each electron in its own orbit, the same as the travel in an orbit around the sun. We live in a world of atoms. The solar system is an immense atom, and is an insignificant speck in space. On a clear, cloudless night, a look at the Milky Way will bring this point home. Each speck in the Milky Way is a sun, similar to ours, but most of these suns are hundreds of times larger than our sun. None of these stars are stationary, nor is our sun. All travel through space, at speeds of from ten to fifty miles (or over) per second. All travel in a regular, orderly manner, according to a Natural Law. Astronomers can tell us the exact relative position of almost any star a thousand years ago, and where it will be a thousand years hence.

Each of these stars is made up of atoms of the chemical elements, the same elements we know to exist on the earth. Stars, being incandescent, are made up of intensely hot gasses, the same as our sun. Their elements have been identified by spectroscopic examination. Fragments of broken stars, better known as meteors, which have fallen on the earth, have been examined and analyzed in the laboratories, and the results show that no element, unknown on the earth, has been detected in these meteorites. Of the known 92 naturally occurring elements, 28 occur in sufficient abundance in stony meteorites to merit listing here. In alphabetical order, they are aluminum, calcium, carbon, iron, magnesium, nickel, oxygen, phosphorus. In smaller amounts, often in traces, are found the elements chlorine, chromium, cobalt, copper, hydrogen, iridium, lithium, manganese, nitrogen, palladium, platinum, potassium, ruthenium, sodium, sulfur, titanium, vanadium and probably argon and helium. The elements antimony, arsenic, gold, lead, strontium, tin and zinc have been reported from time to time, but no authentic analyses are available.

It must be remembered that all stony meteoric matter *known* and *analyzed* amounts to about one hundred tons (Iron-nickel meteorites not included). With this paucity of material available for study, not all the known elements could possibly be found in this small quantity of stony matter. We often think of copper as an abundant element on the earth's surface, yet, of the thousands of terrestrial rocks of all types from all parts of the world analyzed in the laboratories, the average content of copper found in the earth's crust (that upper

portion approximately ten miles deep) amounts to less than one one-hundredth of one per cent (0.01%). Which should give us an idea what difficulties the chemist encounters when he expects the relatively few meteoric stones to yield these trace elements.

Furthermore, not all stony meteorites are large; the average one weighing approximately 25 pounds. One which fell at Bherai, Bombay, India on April 28, 1893, weighed only one-fourth of a gram, or about the size of a small shrunken pea. Another, which fell at Barntrop, Lippe, Germany on May 28, 1886, weighed 17 grams, less than one-thirtieth of an ounce. Another, which fell at Castine, Hancock County, Maine, on May 20, 1848, weighed three ounces. Stones over 300 pounds in weight are exceptional. Of all the *known* meteoric stones which have fallen in all parts of the world, the total number is less than 500.

The chemical analyses of stony meteorites have revealed the fact that meteorites are composed of minerals, most of which are known in terrestrial rocks. Among the more common are graphite, diamond, quartz, tridymite, magnetite, chromite, the feldspars; the pyroxenes enstatite, bronzite, hypersthene, diopside, hedenbergite and augite; the olivines chrysolite and forsterite; apatite. The compounds of iron and nickel, olivine and pyroxene are by far the most abundant found in meteorites. The same compounds are also abundant in the terrestrial basic igneous rocks. A stony meteorite which fell at Maziba, Uganda, Africa on September 24, 1942 was examined and analyzed in the laboratory of The Geological Survey of Uganda. It was found to consist mainly of olivine, an orthosilicate of magnesium and iron. The mineral olivine is present in many of the basic igneous terrestrial rocks, chiefly in peridotites, the rock where practically all platinum and diamonds originate. Other minerals in the Maziba stone are also common terrestrial minerals—albite, antigorite (a fibrous serpentine), enstatite and zeolites. Of course, these minerals were detected under the microscope, as the entire Maziba stone weighed only 13 pounds.

The similarity of elements, chemical compounds and the crystalline structure of stony meteorites may lead one to believe that all matter, whether in space or on the earth, had a common origin. The most abundant elements in the terrestrial rocks are oxygen, silicon, aluminum, iron, magnesium. These same elements, excepting aluminum, are also found as the principal elements in stony meteorites.

Getting back to earth; all living organisms are made up of the atoms of the chemical elements. Even life itself begins as a modified atom—the egg, the seed. Let us consider the ova of two animals. Both are nucleated cells. Both are made up of the same chemical elements. Materially, they are the same. A chemical analysis reveals no difference between these two eggs. Under the microscope, nothing is revealed in one that does not appear in the other. Yet, out of one is developed the embryo of, let us say, an ox. Out of the other egg is developed, the embryo of a horse, or a gentle lamb, or a ferocious lion. Thus, with no difference in the chemical composition or ultimate arrangement of their molecules, there exists a vast difference in nature in these eggs.

The animal organism is the most marvelous mechanism on the face of the earth, even more marvelous than intercontinental engines of destruction or sputnik satellites. In this organ, atom by atom is selected and built into the various parts. Certain atoms are suited to build the bones; other atoms are suited to build nerve tissue, the brain, the heart with its arteries, the breathing apparatus, the digestive system, the skin, the hair and so forth. The conformation of the system of structures in the animal organism is not the result of atoms arranging themselves by their own choice. When atoms, of their own choice and under favorable conditions, arrange themselves, the result is a chemical compound, not an organism. Chemical compounds

have no mind and cannot think; they cannot see, hear or feel; they have no digestive systems and cannot reproduce themselves and perpetuate the species.

What then, may we ask the atheist, puts life into organisms? Organisms are made up of the same elements we find in rocks, the seas, the atmosphere, the meteorites from outer space. The principal elements found in animals are oxygen, hydrogen, carbon, calcium, iron, phosphorus. Traces of other elements are also found in the animal organism, such as iodine, chlorine, sodium, copper, manganese, potassium, cobalt, sulfur. In fact, these trace elements are essential to good health, as any doctor will tell us. Matter of fact, he prescribes them as medicine when we are ill. The very same elements found in the animal organism may be found in almost any type of rock picked at random.

Animals and plants now in existence are the lineal descendents of organisms that existed in by-gone ages. The processes of evolution from egg to adult form are biological phenomena governed by laws. According to these laws, the individual animal, in its development from egg to adult form, passes through stages representative of the evolution of the species, for example, the growing of teeth after birth. Ever see an animal born with teeth, or a calf born with fully developed horns? Of course not. The development of each individual proceeds according to certain laws, which the biologist certainly lays no claim to having made. Whence come these laws if not from a Creator?

The laboratory, with its learned scientists; with its chemical elements stored away in jars; with its precision instruments and appliances, has yet to produce an animal organism, particularly the species *Homo sapiens*. All the atoms in matter comprising the universe constitute one system, a complete system, a unity called Nature. This unity implies one *Original Planner*, one *Supreme Creator*. Living organisms were created, as were the rocks, the stars and all matter in space, *each according to Plan*.

Gore Mountain, N. Y.

The famous Barton Garnet Mine on Gore Mountain, near North Creek, Warren Co., N.Y., was recently described in the rotogravure section of the Syracuse, N.Y., *Post-Standard*, July 6, 1958, issue.

Three full sheets of photos and text by Walter Carroll were used to illustrate this intensely interesting locality. We learn from the text that:

Barton Mines Corp. at North Creek is the highest mining community in New York State. It is located at the 2,600-foot level on the north side of Gore Mountain in the Adirondacks.

For 80 years Barton Garnet has led the field in the major advances of the abrasive industry.

Since 1878, when Henry Hudson Barton bought Gore Mountain, the abrasives have poured from North Creek in the Adirondacks.

Many of the almandite garnets of Gore Mountain have been set as gems, but most of the material has been used as an industrial tool.

The pockets of garnet are embedded in hornblende. It is mined in "benches," or huge steps, 30 feet high. These are cut down in layers by dynamite and scooped up by power shovels.

The garnet is separated from the hornblende and feldspar by heavy machines, mineral jigs and the floatation process.

After separation, the garnet is dried and heat treated to temper and condition the abrasive qualities of the mineral. Preparing it for specific uses in industry is accomplished by screening and water classification.

Seventy per cent of the lenses used in precision instruments in the free world are ground with Barton garnet powders.

Barton garnet is used on plastics, in softer non-ferrous metals such as copper, brass and bronze and on pouncing paper in the felt hat industry. It is used for mineral polishing, surfacing ladies' nail boards, for dental grinding wheels and hundreds of other purposes. Twenty-five tons of garnet are processed for shipping every two days.

* * *

We are indebted to Elizabeth M. and George W. Henes, 208 Tamarack St., Liverpool, N.Y., for this very interesting rotogravure section featuring the Barton Garnet Mine (the world's largest garnet mine).

VIRGINIA REVISITED

By LAWRENCE AND HARRIETTE SCHOPPEE
9 Greenbrier St., Springfield, Mass.

We revisited Virginia in May 1958, four years after our first trip, and found new operations and old "world famous" collecting localities which are still interesting. We started collecting at Amelia, Virginia, and proceeded clockwise in a circle which ended at Atlantic City, New Jersey.

Rutherford Mine at Amelia is now being worked by W. D. Balzley, a young man with varied mining experience and much enthusiasm. He has opened two new shafts and is reopening the original Rutherford Mine. This means that Rutherford minerals will again be available to collectors. Near the mine Mr. Baltzley has opened a Rock Shop which offers rough material and polished gems from all over the world, and he plans to maintain a good stock of representative minerals from the Rutherford Mine itself.

Collectors may visit the dumps after paying $1 fee to Mr. Keener who owns the mine property. Directions to the Rock Shop, mine and to Mr. Keener's house are as follows: from the center of Amelia at the four corners near the railroad station, go east on Route 360 (toward Richmond) approximately 1.2 miles to county route 609, a left turn, with the sign "Powhatan Ch." at the corner. Go 0.4 mile to Rock Shop, 0.1 mile farther to Mr. Keener's driveway on the left. The mine is located in the valley just behind Mr. Keener's barn.

We collected good amazonite, good moonstone, beryl with good shape but poor color, scant spessartite and beautiful clear albite crystals (cleavelandite) in just a few hours. So many important mineral collecting localities have become exhausted or closed to collectors that the reopening of the Rutherford Mine is encouraging and thrilling news.

Going westward to Rice, Virginia, we found that Mr. and Mrs. Hodges, mentioned in our letter in R&M, Jan.-Feb., 1955, are still picking up amethyst in the fields. What a wonderful project for retirement! All members of the Hodges family are interested in amethyst and were very helpful to us. Mr. Walter Hodges showed us the site of the original mine, now only a gash in the red sand. Mr. and Mrs. M. D. Hodges gave us a lovely terminated crystal and an invitation to prospect through their cornfields, a most welcome invitation which time forced us to postpone.

To visit the family of Hodges on whose property the amethyst mine is located, start at the four corners in Rice formed by county routes 600 and 307, head east toward Richmond on 307 and take the first left, about 0.2 mile, a narrow dirt road to the Hodges home on the left.

From Rice and continuing westward toward the Tye River area, we found blue quartz of cabochon grade in an abandoned road stone quarry on the bank of the Tye River at Route 158.

Piney River village has an ilmenite and an aplite quarry, both of which were closed to visitors.

The rutile location at Roseland will be found south of town on route 655. Deep cuts in the brilliant red Virginia soil mark the location. We suggest entering the quarry to the left of the road, heading south. We prospected the cut at the right of the road, heading south, and have scars to prove it—the sides were so steep we had to inch our way up, clinging to blackberry bushes. I can feel those briars now. We collected nothing to mention. We learned afterwards that the left side of the road offers the better collecting and we are happy to pass on the information from bitter experience. There was no activity visible anywhere, and the publicity relations officer at American Cyanamid told us before we visited Roseland that the rutile mines were abandoned.

The Irish Creek tin mine where we collected siderite and scheelite is found

by leaving the Blue Ridge Parkway at the Montebello Maintenance Area near Road Marker No. 29 and traveling south on a dirt road parallel to the Parkway, shortly going under it. From the Area to the mine road is approximately 2.1 miles. The mine is located on a hillside behind a new gray cottage which can be identified by a cement bridge over the brook. An old road on the left bank of the brook behind the cottage leads to the mine. Gold-bearing arsenopyrite, fluorite and parisite should be found here.

At Vesuvius, Virginia, which lies two miles east of Steeles Tavern on Route 56, there is an active manganese mine. The South River Mining Company permits visitors at their own risk. Reniform masses of wad are washed out of sticky Virginia clay. Pyrolusite crystals are found here in cavities in the wad. To reach the mine from Vesuvius, go east on Route 56 from the center of town, cross the bridge and turn left immediately on Route 608, along the river. Take the first road right (No. 702) which turns at a brick house and over the railroad tracks. Follow this road to the mine.

From Vesuvius, we went to Spottswood for bauxite which is found as earthy or claylike masses at several abandoned mines. Wad and doubly terminated quartz crystals were also found at the mines. The best advice for bauxite collectors here is to go to the tax collector's office at Spottswood and ask directions. Spottswood, not found on some road maps, lies just west of U.S. Route 11 on Route 620.

Crimora, on U.S. Route 340 seven miles north of Waynesboro is a "world famous" mineral locality now desolate. The dumps rival the nearby Blue Ridge in size, and the manganese we found was wad in fanciful rounded forms. To reach the Virginia Manganese Mine, from the center of Crimora, start at the crossroads, go east toward the Blue Ridge and keep straight on Route 612 approximately 2.2 miles.

On U.S. Route 211, eight miles west of Luray, we found an unexpected treat! Mr. Lester Kibler operates a fine rock and gem shop right on one of the most beautiful routes of our trip. Of course we stopped for business and "collected" some fine unakite, a sphere of cave onyx, and some lovely dolomite crystals in saddle-shaped forms. Mr. Kibler is a highly competent lapidary, cutting hundreds of beautiful cabochons during the winter months.

At New Market we collected a new use for corncobs—when dipped in water they clean bugs off windshields just dandy!

Timberville, in the lead-zinc ore section, was our next objective and to our delight the mine reopened that day. Visitors will be permitted above ground with restrictions. To reach the mine, start at the four corners of Routes 260 and 42, go north on 42, taking county route 881 to the left about 0.8 mile along. The mine appears on the left about 2.1 miles farther. Sphalerite was common, with less lead and iron. Greenockite occurs in border zones as a yellowish coating on the sphalerite. Mr. Lawrence Hayes of the Tri-State Zinc Co., Inc., presented us with an unusually large mass of solid sphalerite for our Springfield Museum.

The anthodites found only at Skyline Caverns, Front Royal, (according to the publicity) will attract both the photographer and the mineral enthusiast. These cave flowers of $CaCo_3$ are very beautiful and well covered with chicken wire. There are only a few places for photographs. We recommend Dr. B. M. Shaub's Book of Mineral Photographs for a good picture.

The Fairfax-Loudon County diabase quarries are nearly all closed to collectors. Here are a few where collecting is permitted. The Arlington Stone Quarry at Leesburg is working and permits collectors in areas not active. From Leesburg go east on Route 7 to the Goose Creek Country Club. At 0.7 mile past the Club take a road right and go 1.6 miles to the quarry road, another right. The office and weighing station are a half a mile beyond the turn.

A new traprock quarry has recently been opened behind and west of the

Goose Creek Country Club. The sign on Route 7, "Virginia Traprock" will point the way. Copper and prehnite showed up here.

Fairfax Quarry on Routes 29 and 211 west of Centerville, Virginia, is not open to collectors, but has little but micromounts to offer anyone at present. Occasionally a small vein of prehnite and datolite crystals appears to remind collectors of the glorious museum specimens found here about three years ago.

Of all places to collect, perhaps the last we might think of would be the boardwalk at Atlantic City, N. J., but as we read R&M we know that the Boardwalk Rock and Shell Shop at No. 2205 Boardwalk has much to offer. The proprietor has lived in the Midwest for some time and has a spectacular collection of fluorite, galena and sphalerite crystals for sale. Good prospecting here! We say, read R&M and get more out of your prospecting trips.

Although many old collecting areas in Virginia have little to offer today, new openings are being made and old locations reopened. New Activity at the Rutherford Mine is good news to collectors.

HIMALAYA MINE REOPENED

From MINERAL INFORMATION SERVICE, Aug. 1, 1958

Division of Mines, Ferry Bldg., San Francisco 11, Calif.

The Himalaya Mine at Mesa Grande, San Diego Co., Calif., world famous producer of fine tourmaline and other gem materials, has been reopened; and tourmaline is again being produced, 20 to 25 small pockets having been removed recently.

The property was purchased in 1952 by Ralph Potter of La Mesa, after having been relatively inactive since 1914. About a year ago Mr. Potter undertook to open the old main tunnel in the mine, which had become filled with silt during the long period of inactivity. On March 16, 1958, Mr. Potter and his associates finally broke through into an open portion of the old tunnel to find not only canteens and tools left by the former miners, but many fine unworked pockets of excellent gem and specimen material.

Fine pink, green, bi-colored and varicolored crystals are being mined. One pocket recently removed yielded pink and green tourmaline, with sections of a bluish color, an unusual type of material for this locality. Most of the crystals have been "free", although embedded in the very sticky, red pocket clay. Very few matrix specimens have been encountered in the recent operations. In addition to tourmaline, some good apatite crystals, pinkish-purple in color, have been found, as well as many fine specimens of quartz, cleavelandite and lepidolite.

The most productive area of the mine has been between 425 and 525 feet in from the entrance to the tunnel. The most recent work has been in a stope about 60 feet above the tunnel level, and 425 feet from the mine entrance.

The mine is not generally open to visitors at the present time. Heavy rains during the winter caused severe road damage, and it is passable only to 4-wheel drive vehicles. In addition, the road passes over private property and it is therefore necessary that written permission to visit be obtained from Mr. Potter.

Mr. Roy M. Kepner, Assistant Director of the Division of Natural Resources, in San Diego County, kindly supplied the above information and emphasized that written permission *must* be granted by the owner.

IDOCRASE FROM ROCKVILLE, MD.

By CAPTAIN JOHN SINKANKAS, U.S. NAVY
2727 South Inge Street, Arlington 2, Va.

As far back as January 1936, R&M published the first of a series of three monthly articles written by Dr. Titus Ulke of Washington, D.C. on the minerals of the District of Columbia and vicinity. Though very complete it did not include the mineral idocrase (vesuvianite) which has recently been found at the large quarry near Rockville, Montgomery County, Maryland. A scrutiny of the "Minerals of Maryland" by Charles W. Ostrander and Walter E. Price, Jr., a small booklet published by The Natural History Society of Maryland in 1940, also gives no space to idocrase except to list it among Maryland species without saying where it has been found or under what circumstances. The purpose of this brief notice is to announce the appearance of this mineral in massive form at the quarry just mentioned and to describe a few of its properties and the circumstances under which it occurs.

The Rockville Quarry is a large elliptical steep-walled excavation in dark-colored gabbroic rocks which in places appear to be altered to blackish olive-green serpentines. Although the preponderance of the rock is of no interest whatsoever, some places have been found within the quarry where vein- or dike-like masses of coarsely granular rock containing interesting and colorful minerals occur. The latter consist principally of bright green chrome diopside, altering to black hedenbergite, and displaying weak schiller, and pale orange-red to pale orange granular grossularite garnet. One place near the end of the quarry opposite the crushing and processing plant yielded similar material but this time containing masses of translucent granular olive-green material vaguely resembling serpentine but lacking any trace of fibrous character. When sufficiently compact and colorful, the various types of rocks can be cut and polished in slab or bookend form and then make attractive ornamental objects.

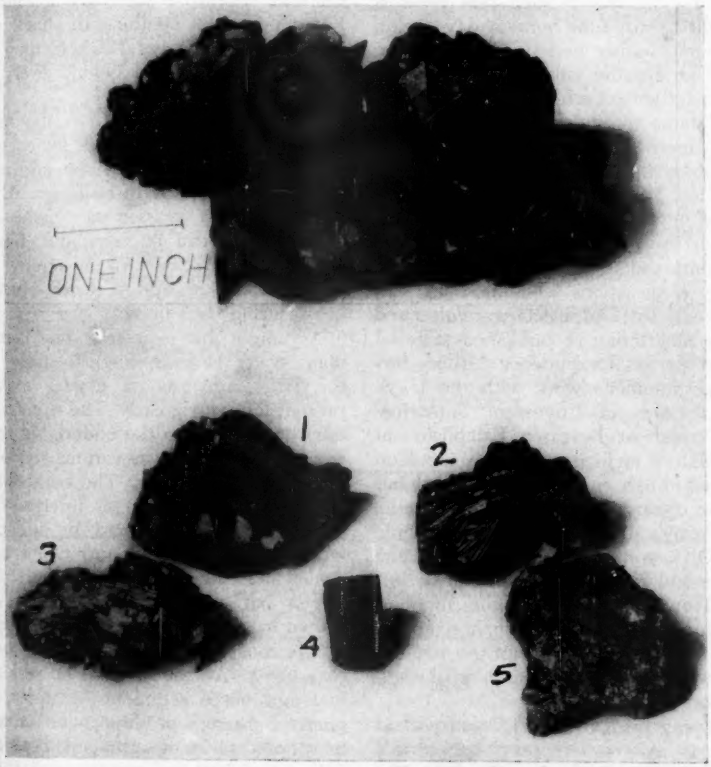
The olive-green material resembling serpentine struck me as being quite different in character from either that mineral or grossularite garnet. In support of this view was the fact that it formed sharp boundaries with pink grossularite, a condition which would not prevail if it were merely a color phase of grossularite. All indications and associations pointed toward it being idocrase although this mineral had hitherto not been reported from the vicinity of the District of Columbia. Accordingly, a small pure piece was detached from a sample mass, carefully polished, and the refractive index obtained on a Rayner refractometer. Despite its massive structure, sharp readings of 1.71-1.713 were obtained. This range is much too high for serpentine (R.I.=1.50 to 1.57), and does not agree with nephrite (R.I.=1.62) nor with grossularite which ranges upward from 1.74. The indices are also too high for diopside, even though its cryptocrystalline form had already ruled out this possibility. A quick check for specific gravity by immersion in methylene iodide (S.G.=3.32) showed that it sank in this liquid, a reaction to be expected from idocrase since its specific gravity ranges from 3.35 to 3.45. The foregoing tests appear sufficient to establish identity and add still another species to the list of minerals found in the vicinity of the District of Columbia if not in the State of Maryland.

The largest mass of idocrase found by the author occurred as an irregular seam intimately associated with pink to red grossularite and dull green to bright green, diopside. Typically it was criss-crossed by fractures so that the largest unflawed areas did not exceed about an inch across. Translucency is fairly good but the color is not vivid and the use-

fulness of this mineral for ornamentation appears limited. In addition to the minerals already mentioned, the following interesting occurrences may be noted: *common opal*, sometimes containing small black dendrites, white, bluish, brownish, in seams and formed by the decomposition of serpentine; largest masses range up to 4" x 8" x 12" but only small places are sufficiently solid and without blemishes to afford cutting material; *serpentine*, grayish-brown, and containing small spangles of bronzite exactly like the celebrated serpentine from the Lizard in Cornwall, England; this material is soft and porous and appears to be an in-place alteration of gabbro.

Reference

Rockville Crushed Stone Quarry, by John O. Griesbach, Rocks and Minerals, July-Aug. 1956, pp. 351-353.



Some fine crystals from Butte, Mont.

The copper mines at Butte, Mont., have furnished many extra fine minerals—often in beautiful crystals. Among some of the minerals from Butte are the following:
Top: Group of extra fine covellite crystals.
Bottom: 1—Enargite crystals. 2—Covellite crystals. 3—Parallel groupings of enargite crystals. 4—Enargite crystal ¾-inch long. 5—Stephanite (crystal portion).

A BRIEF STUDY OF THE GEOLOGY OF THE THULE AREA, GREENLAND

By BEVAN M. FRENCH
98 Alexander Avenue, Nutley 10, New Jersey

"Thule" has long been a word to conjure with. From the times of the Greeks and Romans it referred to a northern land which may have been Iceland, Norway, or the Shetland Islands. In later times, the word has come to mean simply "a far place."

Thule, Greenland, is a far place. About 2500 miles north of New York City, its latitude (76° N.) is such that there is daylight twenty-four hours a day during the short summer period. Originally the site of an Eskimo village, it was later a Danish settlement which attained a measure of fame through the exploits of one of its more noted citizens, the sailor and $64,000-Question contestant Peter Freuchen. Its main feature now, in these days of international tension, is an American airbase, operated by the Strategic Air Command.

The observations contained in this admittedly surficial article were obtained from a smattering of published material and by personal experience gained during one summer's work with the U. S. Army's Corps of Engineers' Snow-Ice-and-Permafrost-Research-Establishment (SIPRE), a civilian-staffed organization engaged in carrying out fundamental and applied research in and about the Arctic. The Army's Camp TUTO (for Thule Take-Off), some miles southwest of the airbase and near the edge of the Greenland Ice Cap, is, during the summer, a beehive of effort as civilian scientists and Army personnel attempt to carry out their winter-planned research in the all-too-short summer.

Stepping from the MATS transport at Thule is akin to stepping back some 10,000 years into the last Ice Age. The Greenland Ice Cap comprises the whole eastern horizon, rising from nothing near the edge of the sea to depths of two miles near the center of the island. The ground is not soil but a complex of rocks and sand which bear testimony to the action of glacial ice in some past time. The ground is crisscrossed with cracks and mounds which testify to the action of the extreme climatic conditions, which have formed the so-called "patterned ground" or "polygonal cracks" which are the object of much feverish study during the summer field season. Trees in the temperate-zone sense are absent; Air Force personnel combine this lack with one more fundamental when they say wryly, "There's a girl behind every big tree."

The only "tree" present is the Arctic willow, which will spread its complex roots over several square feet and reach a height of perhaps three inches. Other plants such as grasses and lichens of several types can be seen, and flowers such as the yellow Arctic poppy and purple saxifrage add a brief burst of color during the summer.

As might be expected, the lack of plant cover helps geological study, but the large amounts of glacial moraine present hinder it greatly. The countryside takes its color from the underlying rocks, and stretches away in various shades of browns to the horizon. The bedrock can sometimes (cautiously) be inferred from the surface material and in one case, where a series of red and white sandstones alternate, the talus slope is striped like a barber's pole, emphasized with brown from the weathering diorite dikes.

The rocks in the Thule Region are of two types. At the base is a series of metamorphosed sediments, granites, and gneisses. On top of these is an unmetamorphosed series of sediments, beginning with quartzites and conglomerates, and passing upwards through black shale, red sandstone, dolomite, and red sandstone again. This upper series of sediments lies in a very gentle basin with its center almost at Thule itself. The rocks in the

north dip south, those in the south dip north, but the dips on both cases are slight and apparently no major deformation has occurred. A series of basic lavas, called variously "diorite" or "basalt," is apparently later than all the sediments. One flow caps the famous Mount Dundas, which lies at the edge of North Star Bay.

Identifying fossils are unknown from the Thule region and rare in surrounding areas, so that the age of the formations has been largely a matter of guess for many years. Guesses ranged from Precambrian to Tertiary, covering almost the whole span of geologic time. Koch (1) assigned a Cambro-Ordovician date to the group, but found later evidence which suggested a late Precambrian age, since he found strata containing Lower Cambrian fossils above it. (2). Kurtz and Wales (3) have broken the Thule "group" into separate formations, but little more has been resolved as to the date.

The glacial moraine was extremely useful in finding interesting specimens, although in most cases the original location could not be ascertained. Among the minerals noted were epidote, garnet, and hornblende (in the schists), quartz and feldspar crystals (in occasional pegmatites), massive hematite (with quartz), and magnetite crystals. Some interesting specimens were also found which shed light on some of the structural problems of the area as well. One fist-size piece of red-and-white quartz sandstone showed *ten* small faults through it, with slips measured in millimeters.

Despite the wonderful work of agencies such as SIPRE, the United States Air Force's Cambridge Research Center, and the United States Geological Survey, there is much remaining to be done in the Thule region in the fields of geology, be it from the viewpoint of bedrock, glacial, or surficial studies. Through the multiple miracle of rapid air transportation and supply, the Thule region has become much nearer. Through the patient but infinitely rewarding work of modern science, it will become better known.

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COLLECTOR'S KINKS

Collectors are cordially invited to submit notes from their experiences and so make this department of interest to all.

Cleaning Minerals

Here are some notes on cleaning minerals.

Galena: For cleaning galena, use ammonium acetate.

Smoked crystals (due to fire): If the crystals are not burnt too much, use carbon tetrachloride liquid. THIS MUST BE DONE OUTDOORS. (Do not use inside building). Place crystals in a pan. Use clean small paint brush and don't rub too hard. Try part of a crystal first. DANGER. Handle the carbon tetrachloride very carefully as it will burn the skin—keep it away from the eyes. The reason for not using the liquid indoors is that the fumes would absorb the oxygen in a closed room, causing asphyxiation.

John Kuhhorn
Germantown, N. Y.

AMETHYST IN THE SEA

By JOE ROTHSTEIN

Lapidary and Gem Society of New York
Hotel Paris, 725 West End Ave., New York 25, N. Y.

Nova Scotia in the Maritimes—the words came off the tongue strangely, seemed alien. This was in the summer of 1956 and we were thinking about a change in our daily travel to something less prosaic than the local to Times Square. We had read the one narrow book in the library on the Evangeline country that had gotten lost between the fat "Guide to New York State" and the many "New England Journeys", but it hadn't been much of a preparation. Rolling up from St. Stephens at the border through St. Johns and Moncton in New Brunswick; the only way we knew that we were in a coastal province of Canada was that the legal tender no longer featured George Washington. However, the kilted giant complete with bagpipe who welcomes you at the Nova Scotian line changes all that, and soon thereafter we were traveling through the coal country on our way down to the sea. At Springhill we first noticed the miners dressed in old fashioned Cardigan sweaters and flat caps straight out of "How Green Was My Valley"; but at lunchtime in Parrsboro the same kids from the corner store back home were drinking cokes, feeding nickels into the same juke boxes and murdering our ears with Elvis Presley.

We had come to Parrsboro to see Eldon George who runs a little mineral shop at his home. The previous evening from K. C. Mitton, a friendly collector I had bumped into in Moncton, I had learned that Eldon George had overcome a youthful physical handicap, and that minerals and collecting had played a large part in it, and in also giving him stature in his home community. He is a mineral collector, dealer, lapidary, silversmith and a cordial, smiling host, and was most insistent that I was happy with the exchanges we had made. He gave us directions for West Bay, west of the town, and for the first time we drove the car over a narrow dirt road to a virtual land's end. Leaving the car topside, we climbed down to a deserted beach and while Ruth explored a pile of driftwood I headed for the cliffs. On the way I found a few amethyst points not amounting to much and some mediocre agate. The cliffs yielded plenty of gypsum but that was all. When I got back to Ruth some coal miners and their wives had come down to the beach during their holiday and wanted to know why my nose was buried in the sand. They were curious as I explained and offered us beer but could throw no light on any amethyst. That being the case Ruth and I figured that would be the end of our collecting on this trip and we proceeded to head for Pictou Lodge in Picturesque Pictou. This is on Northumberland Strait and is one of the approaches to Prince Edward Island. The industry is crabbing, the traditions Scotch, and the people are of the country not the city and show it by action and speech. Here we first encountered citrine marked both cairngorm and topaz in the local tourist shoppe; and it was also here that we first saw the typical souvenir jewelry that features amethyst thinly disguised as a Nova Scotia gem. As we traveled down the Capitol at Halifax we started to notice more of this same trend—only in the occasional real craft shop did you find a genuine piece of the pale local stone. In these instances the amethyst would not be cut but usually a single mounted crystal in a silver setting. South of Halifax we again hit land's end at Peggy's Cove. Here a lighthouse stands on the Atlantic shoreline that is nothing but sea worn grey granite and dominates a small fishing village that has become an art colony, but like none we had visited, and we have been in Carmel, California and Rockport on

Cape Ann in Massachusetts, not to mention Provincetown and Nantucket. The houses are crazy quilted on the rocks, the dirt roads corkscrew in between, the salt air taste feels good in the sun and everywhere you turn there is another picture to take.

By this time the Nova Scotian roads were getting used to us or vice versa and we headed over the rugged backbone of the island for Blomiden on an excuse for a dirt road that did the springs no good. This was one time I was glad my luck was bad and the trunk was not full of rocks. We spent the night in Kentville in the heart of Acadia and became acquainted with Harold and Winifred Fox. Winifred is an artist and a comparatively short time ago while Harold was recovering from a serious illness and casting about for something to do while convalescing they hit upon lapidary as the answer that would satisfy the not inconsiderable skills of Harold and the creativeness of Winifred. She designs the jewelry and he cuts and polishes the cream of the Nova Scotian agates and does the execution. The present Queen of England and the Duke of Edinburgh when they visited Halifax were the recipients of the formal gift of the Province of Nova Scotia—jewelry with local agates, the work of this couple. All this we found out later, but that evening over coffee we again charted our course for another journey to land's end. This time to Scotsman's Bay on Cape Blomiden which curves out into the Bay of Fundy like a crooked finger. We made an early start in a misty morning feeling lucky that the tide was in our favor. On the way we stocked the larder as we were told that when the road stops, that was it! The visibility was just below zero when I finally slued the car around at dead end and we felt our way over the rocks to the shore. Streaks of agate threaded the cliffs no matter where you walked but none approaching the beautiful colors I had seen in the lapidary shops of either Eldon George or Harold Fox. Also, at this juncture I needed the strong backs of my gang in New York. There was no cooperative quarry owner to set off a blast and without a pneumatic jack it was pretty hopeless. What we did raise though was an appetite. I still remember that lunch on wild Cape Blomiden. It was just cheese and crackers followed by cookies and coffee from the thermos with Ruth as the maitre d', but the taste lingers long after any of the Thanksgiving dinners in my life. We hadn't seen a soul all morning—there was just the two of us in the fog on the Bay of Fundy, it was wet, cold, and lonesome and a long way to come to find nothing—but that break for lunch in the middle of that day when we realized that we had for once actually gotten "away from it all" floats back to me on many a hot summer afternoon at my desk. On the way back, the mist rose and I stopped the car where the Foxes had spoken about amethyst and again I went down to the beach for a "moment" leaving Ruth in the car. I found the amethyst soon enough and it looked beautiful all wet from the morning's rain but the matrix rock would not give to any of my chisels. After more than an hour's work I bethought myself that Ruth would be worried which was more than true. The Bay of Fundy tide had come in and she had seen a ten foot boulder completely covered in a matter of minutes and she told me that she had been on top of the car yelling and whistling and worrying that I had been washed out to sea. Even if I could not get any of the amethyst pockets out I wanted Ruth to see them and we returned, but this time with our eye on the tide. The pocket was still above water, but not for long. We did a little more cautious exploring and came across a pocket that looked like it might succumb to, by this time, tired muscles. Luckily I found a seam in the matrix, and managed to come away with the whole pocket. It was light amethyst, typical of the region, not too particularly crystalline, but it was something that had been saved for us and only another collector can perhaps understand how we

felt. Later on, taking the second look, we found that the amethyst itself was lodged on a brownish banded agate base. I have polished the agate now leaving the crystals alone and it reposes on my window sill excepting the times I carry it as my "fingering piece." Years ago the late Dr. Herbert Whitlock of the American Museum of Natural History in New York who opened the door for me on gems first told me of the Chinese custom of carrying fingering pieces. Every time I pick up this particular piece and feel the cool smoothness, the whole small Blomiden adventure returns. Our acquaintanceship with the Foxes has ripened into something a little larger, and this year when the Christmas greetings came from them I thought about Blomiden under a blanket of snow and wished I could be there in the Spring when new rocks are splitting off and hitting the beach from the winter ice pressures-and there would be a new harvest again in the sea at Blomiden.

Sandy Ramsay almost does it!

Sandy Ramsay, of Glasgow, Scotland, one of R&M's most loyal friends and Scotland's most famous rockhound, pulled a neat trick on the Editor of R&M that *almost* worked. An innocent-looking little package was received some few weeks ago by the Editor—sent by Sandy. It was an attractive looking dark red cardboard box (Stewart Tartan Plaid) and in it were a dozen or more slender sticks, all neatly arranged and looking for all the world like slender stalactites of various colors. The sticks were 6" long, ¼" dia.—pink, yellow, white and so realistic the Editor thought they were really minerals. The label on the box read—EDINBURGH ROCK.

Must be some odd stalactites from Edinburgh, Scotland, thought the Editor, but the uniform sizes and the various colors puzzled him and out of curiosity one "stalactite" was tasted and the secret was out. It was rock candy.

It was Edinburgh Rock Candy made by Alex Ferguson, Ltd., Melbourne Place, Edinburgh, Scotland. Note: We're on to you now Sandy— "taste first" will be our policy in the future!

Colorado School of Mines begins its 85th year

Sept. 8, 1958—A freshman class of 310 students enrolled last week at the Colorado School of Mines, Golden, Colo., and the fall semester opened Sept. 10th with a total enrollment of 1100 men and women. Included are 295 sophomores, 210 juniors, 195 seniors and 90 graduate students.

The freshmen were welcomed Thursday morning by Dr. John W. Vanderwilt, president of the mineral engineering college. The frosh enrolled for classes on Friday; the others on Monday and Tuesday of this week.

Eleven men and one woman were added to the School's teaching faculty and administrative staff this summer, bringing the total teaching faculty to 110 members. The students were also greeted by the informal opening of a new building—the one-million-dollar metallurgical engineering building. The structure will be the academic home for 250 metallurgy students—triple the enrollment of five years ago.

This is the 85th year of academic training for the Golden, Colo., insitution, this nation's oldest college devoted exclusively to the training of engineers for the mineral industries. Mines grants professional, masters and doctoral degrees in the areas of geological, geophysical, petroleum, petroleum-refining, mining and metallurgical engineering.

AMERICA, MY LAND

By MARGARET HENRY

601 Offnere St., Portsmouth, Ohio

Have you ever become bogged down with the details of your job and could not see the forest for the trees? Well, I felt just that way before taking off for Asheville, North Carolina, to attend the Eastern Federation of Mineral Societies Show last August. I can truthfully say it is the only vacation I have taken that I did not wish to return from. I debated quite a while before deciding on the trip as I did not know how the rockhounds would treat a novice in the field of rocks and minerals. So here are some highlights of my eventful trip. I shall never forget the courteousness extended me by Miss Ida Lee Wilson at the Federation Registration desk. She unraveled for me a mix-up in my hotel reservation and after that everything worked as magic.

First—The three-day scheduled exhibits were beyond my wildest expectation and I wanted to be everyplace at the same time. After purchasing a few beautiful rocks, thanks to Mr. Peter Zodac, I could rest my weary feet at his booth and did take advantage of his divan a number of times. Just meeting Mr. Zodac was a thrill and I told him that had it not been for his ROCKS AND MINERALS I would not have known about the show. One became sort of hypnotized listening to Mr. Zodac talking to so many guests. He seemed to always have the right reply to all questions. He is such a nice person and has an abundance of knowledge at his fingertips.

My fascination for the swap shop in the hotel lobby knew no bounds. Those wonderful rockhounds sitting on the floor (wherever they could find space) intent on swapping, totally oblivious to on-lookers. My keen interest was observed by a "swapper" and he immediately secured for me a cigar box, gave me a few rocks and launched my career as a rock swapper.

Prior to the field trips, I came down from my room early one morning and the first person I encountered was Mr. Robert R. Williams, General Chairman of the Show. He was sitting on the lobby floor with a large display of North Carolina rocks scattered about his feet. He also had large sheets of mica. I asked him: "What in the world are you doing on the floor?" He replied: "Well, I couldn't sleep last night knowing that North Carolina was not represented in the hotel lobby with a swap shop so I got up at daybreak, ransacked my back porch and here I am." Knowing nothing about the wonderful North Carolina mica, I unconsciously knelt to the floor to observe the large flat garnets in each sheet and before I realized, was flat on the floor into a lengthy discussion about mica. Yes, I had arrived. That was my full initiation into the swapping activities. When Mr. Williams so graciously told me to take a strip of mica I told him I had nothing to swap in return. He replied: "Oh, just send me something from Ohio." I will not forget his kindness and concern for all the guests and plan to send him some of our beautiful Ohio pipestone.

As my trip to Asheville was by plane, I wondered how I could be included in the anticipated field trips. Miss Wilson again came to my rescue and told me to register as cars would be provided for those persons not having transportation and if the number exceeded expectation they planned to hire a bus. Oh, those Asheville folks—they didn't forget a thing.

I got another big break when told I would ride each day on the field trips with Mrs. Alma Davis, Route 1, Arden, North Carolina. Meeting this gal was one of the nicest things that has ever happened to me. Alma was not only our driver but was the First Aid Attendant and of course that made our car doubly important. How Alma stood the five

persons riding in her car and all our idiosyncrasies each day, I shall never know but somehow, I believe she loved every minute of it. Otherwise, why would she have taken us on the long scenic drive not included in the trip, just to show us the lovely high mountain falls. Mrs. Davis is truly a devoted person and gave us a week of her vacation so as to afford transportation services. To Alma, we owe more than one can express in words. For Asheville, she is a dedicated ambassador of good will. She loves to show her city and its many beauties to others. We need more such persons in this world.

Mrs. Marie Huber of Lancaster, Pennsylvania, was a better trouper than I as she stood at her box at the Holbrook Mines for a full eight hours without stopping. She later admitted she was too numb to move. She does a lot of beautiful cab work and from her I learned lots.

We had another amazing lady in our party. Not to be daunted by water, she remained in the creek at the garnet mine regardless of rain. I recall hearing her mention "mud pies" so whether she was looking for garnets remains a question, although she did get quite a number of nice ones.

Bob Gilmore, age 16, of Pearisburg, Virginia, was our mascot. We soon grew to love Bobby, as we called him, and his enthusiasm became contagious, rubbing off on all of us. He was so very eager for each day and its many surprises. I have forgiven him for wetting me at the Holbrook Mine when he suddenly discovered a large sapphire in his box, at which time he excitedly turned his hose on me full force. Bob caddied all summer to enable him to make the trip to Asheville. He collected quite a number of nice rocks and claims his collection now contains 37 minerals. Bobbie got so many garnets that he hoped his town would roll out the red carpet for him upon his return home—band and all. He said he would then be driven through the thoroughfare tossing garnets right and left, which would make him the King Fish of his community for quite some time to come. Oh, what a real American boy.

I returned home with numerous bruises from falls—both up and down hills. Most of my falls occurred at the Holbrook Mine and before we left I became quite an expert at it as I could do it gracefully without anyone nearby becoming horrified. DeSoto may have been the first rockhound in North Carolina but I'll bet he did not have as much fun and as many good laughs as we five rockhounds had on each day's field trip.

At the garnet mine, I found a choice spot in the creek; dammed the water, and for several hours checked the area in detail. Or at least I thought I had. Failing to get results I moved down the road and to our car. Bobby arrived at the car some time later proudly displaying two beautiful garnets he had found in the exact spot in which I had been exploring for so long. That is the way it goes.

Each day was a complete story in itself. The wonderful drives to each mine and then the excitement of climbing and hunting with hundreds of others for just one rare rock or gem. The sound of hundreds of hammers and picks was true music to all and the comradeship made one realize just how precious friends really are.

Oh yes, I hope Mr. William C. Turner, Manager of the Vanderbilt, will forgive me for using a pillow-slip as a sack for my loot each day. A better bag could never be found anywhere. Then, too, the staff at the Vanderbilt was so cooperative in boxing my rocks so I could bring them home by plane. Many thanks to them.

Meeting so many wonderful persons from so many States gave me a new perspective and broadened my horizons. I came home from Asheville firmly convinced we will always have an AMERICA—yes—always. Well it is all over and everyone has gone his or her way, north—south—east and west.

Rumors are that next year's show will be in Boston. Boston or Maine—I shall be there—God willing.

RHODOCHROSITE IN COLORADO

By DON INGLE

Blue Creek Road, Evergreen, Colo.

Colorado, the highest state in the union, is also one of the most highly mineralized. It has an amazing abundance of minerals that are popular with the mineral collector. One of the most sought after minerals of the state is rhodochrosite.

Rhodochrosite, a manganese carbonate, is popular with collectors because of its color, a rose to pink shade of red, although it is sometimes gray, dark brown, and, more rarely, colorless. Crystals are somewhat rare, and are rhombohedral in habit; they belong to the hexagonal system, ditrigonal class. The cleavage is perfect rhombohedral. In the massive variety, it forms crusts, botryoidal masses, and granular deposits. Its hardness varies between 3.5 to 4.5, and has been used for some jewelry, though it is usually too soft for most purposes in the lapidary line.

Found as an associated mineral in ores of copper, manganese, iron, lead, silver, gold, and zinc. A common mineral with pyrite.

Of the many Colorado locations, perhaps the best specimens have come out of the Sweet Home Mine, in the Alma District, Park Co. The color, transparency, and size make this one of the world's most outstanding examples of the mineral. Dr. Pough has a picture of the Alma material as an illustration in his book, "A Field Guide to Rocks and Minerals." Although it is hard to find, and collectors are not always welcome here, I cannot comment on the Colorado rhodochrosite without mentioning this location.

A partial list of mines and places that are good producers of this mineral now follows.

Hail Stone Mine	Summit Co.
Mineral Farm Mine	Ouray Co.
Needle Mts.	La Plata Co.
Eureka Mine	La Plata Co.
Alicante District	Lake Co.
Enterprise Mine	Dolores Co.
Eagle Mine	Saguache Co.
Russell Gulch	Central City, Gilpin Co.
Workman	Workman, Colorado
Climax Mine	Climax, Colorado
Silver Bear Mine	Ouray, Ouray Co.
Moose Mine, Willis Gulch	Central City, Gilpin Co.

This is but a small number of the total finds of the mineral in the state. But it does show the widespread occurrence that the mineral has in the various parts of Colorado. Many of the locations are open to collecting, and of course the mining districts themselves are made up of innumerous mines and prospects that are now abandoned and can be visited by the rockhound. There is quite a bountiful supply of minerals to be collected here in Colorado. and rhodochrosite is one of them.

Reds Dig Up Biggest Quartz

LONDON (AP)—Radio Moscow reported recently Soviet geologists have found a 70-ton hunk of quartz crystal in Kazakhstan (Central Asia). It was described as piezo-quartz, a type used for the manufacture of electro-acoustic instruments. The broadcast said it succeeds a 40-ton Brazilian find as the world's biggest.

(Item sent in by R. J. Ripple, 6 Loch Path, Rockville Center, N.Y.)

Belmont Abbey College has minerals for exchange

Belmont Abbey College, Dept. of Geology and Geography, Belmont, N. C., has available for free distribution a 5 page list featuring a wide variety of duplicate minerals that they have for exchange. The minerals are grouped: minerals of North Carolina, micromount, fluorescent material, radioactive minerals, and minerals from miscellaneous localities outside of North Carolina.

MY MINERAL ACTIVITIES IN 1957

By RAYMOND LASMANIS

70 St. Marks Place, Roslyn Heights, L.I., N.Y.

During 1957 I tried to concentrate on collecting minerals occurring in pegmatites. The previous year my mineral collecting was done in New Jersey.

Because of the weather conditions I did not go on any field trips during January. But, I did have a small hand in forming a mineral club in Nassau County, New York now called the Nassau Mineralogists. My first field trip of the year took place in February when I visited Branchville and Ridgefield, in Connecticut, while my parents were visiting relatives in Norwalk. The short time I was on the Branchville dump I found some nice cleavelandite xls., an orthoclase xl., and some uraninite. The cymatolite passed up by many collectors has come in quite handy for trading. The rest of the day I spent at the Ridgefield Pegmatite chiseling out very deformed quartz xls, from the wall of a small quarry above the main cut. I did not spend much time on the dump since it looked well picked over.

Collecting at Franklin, New Jersey

During March I did much better; I took three field trips. On my first trip I took the Nassau Mineralogists to Franklin, New Jersey, where I used to spend most of my time. I passed the day trying to find specimens for the members of the club. At the Buckwheat Mine Dumps close to the river I broke up a boulder which contained very large phlogopite plates, pyrite, pyrrhotite, small rutile xls., and apatite xls. There were enough specimens for everybody. We also found sphalerite xls. in dolomite cavities and the usual franklinite, willemite, zincite specimens. Then we headed over to the Gooseberry Mine Dumps at Franklin. There I found a large, well formed actinolite xl. Edenite in small xls. was also plentiful as well as the poison ivy of which I got a bad case. Also found some apatite.

Collecting in Connecticut

My next field trip during March was to the Connecticut River Valley dinosaur footprint locality, which is mentioned in the Jan.-Feb. R & M issue of 1956. While there we made three plaster of paris prints: a pair of small prints, another of the same type, and a cast of a large print. The rest of the day we spent at Gillette Quarry in Haddam Neck, Connecticut. Did not find anything of value since it was my first trip to this locality. Next week I returned to Gillette Quarry. I spent the morning looking through the quarry not finding anything. Then I met Bob Gallant and through him found out what an excellent locality this is. I really went wild and brought home a lot of junk with my good specimens. I found a couple of gemmy beryl xls. and quartz xls with white inclusions. But, the prize was a specimen of pegmatite 5" x 7½" having a cavity on it 6½" long containing three large clear quartz xls with white tourmaline inclusions, albite xls and green tourmaline xls.

I started out May by taking one of my friends through some noted collecting localities in Connecticut in hope of getting him interested in mineral collecting. We visited Strickland Quarry at Portland and then we went to the old cobalt mines and pegmatite quarry at Cobalt. To finish the day we went to Gillette Quarry at Haddam Neck where looking along the river I found a beryl xl 2" x 1" terminated at both ends with a light green gemmy spot in the middle. Later that same month I again went to Gillette Quarry hoping all the way over that the rain would stop. When I arrived at the locality it was still raining. I got out

and tried to collect but did not find anything.

Collecting in New Jersey

June was the most successful month of the year. June 2nd I took my best friend, Joe Albertson (Note to editor: he is the son of Mr. Albertson, editor of the Peekskill Evening Star) to New Jersey hoping to introduce to him as many new collecting areas as I could. I took along a camera to take colored photographs of the places we were to visit. The first two quarries we went to were the New Street trap quarries in West Paterson. Found a nice specimen of analcite xls in the Upper Quarry when we broke open a vug. The next stop was the the Rudeville Limestone Quarry at Rudeville. A very large and impressive looking place. Collected some pyrite xls and in the north part of the quarry we found some black tourmaline. Joe found a specimen of brown tourmaline. Then we headed for the Buckwheat Mine Dumps at Franklin where I finally found a decent specimen of spinel—a nice green well formed octohedron in calcite. Also found the usual andradite xls. Then we went to Furnace Quarry, Farber Limestone Quarry, and Franklin Iron Ore Quarry to get some pictures. A very pleasant trip.

Collecting in Maine

On June 25 I started out with Joe Albertson for Maine; a trip I had hoped to go on for years. We spent the first day fishing on Thompson Lake near Casco. Didn't have much luck and besides it was raining. The next day we started out towards Newry by Route 35 and along the way stopped at Bumpus Quarry at Albany. Picked up some rose quartz and beryl. Just before noon we arrived at the Newry mining area. It did not take us long to get ready for the long climb up to the Newry Mine. Picked up a nice specimen of triphylite and cookeite at the entrance to the mine. I went up to the Dutton Tourmaline Mine and then later Joe and I headed for Scottie Mine on Mt. Plumbago. Pickings there were much better—while Joe was finding large cinnamon garnet xls I found a 10" long golden beryl xl. Too bad though, it was not gemmy. Dusk was creeping up on us so we had to call it quits for the day.

Spent a restful night sleeping in the station wagon while fighting off the bugs, twisting over the slats in the floor, and rolling towards Joe because the car was parked on an incline. Before we could even think of sleeping we had to get the boat and other junk we had with us out of the station wagon. Later we chained the boat to a tree.

The following day was again cold and cloudy but the specimens we had found the day before had us up early in the morning driving up the hill towards Mt. Plumbago—a 45 min. hike up a steep slope. Found lots of beryl that day and some columbite plates. The rest of the day was spent chiseling out beryl xls out of matrix. Then they had to be carried down the mountain—real back-breaking work.

It was the 4th day we have been in Maine. It was raining slightly but we decided to head for Scottie Mine again. The wind up on top of the mountain was terrific. We later found out that it was the end product of hurricane Audrey. While Joe was looking for more beryl I spent my time sifting through dirt at the eastern part of the quarry for quartz xls; found a handful of small, clear xls. A local collector told us of a rose quartz ledge where rose quartz xls could be found on the summit of Mt. Plumbago near the Whitehall opening. It took us another 30 min. to climb the summit from Scottie Mine. There, we never did see any rose quartz but just the usual beryl.

The next day Scottie Mine was again our objective. Joe found some small purple apatite xls in vugs, while I picked up a couple of specimens of muscovite xls in fissures. In the afternoon we headed for the Dutton Tourmaline Mine. Sifting through the finer material we found sections of red tourmaline xls that once must have been priceless. Also found some more triphylite and a boxfull of various brown minerals of which

I could only identify herderite. Some of these brown minerals contained lazulite. The heat and humidity finally made us quit for the day.

July 1st arrived and we decided to head for a new area. The closest place seemed to be West Bethel. At noon we arrived at the Wheeler Mica Mine. Permission to collect there should be obtained at the mica splitting plant in Bethel since the mine is active. Found some excellent muscovite xls, manganoapatite, aquamarine, and gemmy garnet xls. Some of the muscovite has biotite inclusions. My friend Joe Albertson found a manganoapatite xl 1½" long while my prize of the day was a albite xl 3" x 1" with unflawed faces found at the North opening. Also at this opening I found a specimen of manganoapatite as large as a man's fist with some gemmy parts. After that we made the mistake of the day. We hiked for 5 miles all the way uphill to reach the Peaked Hill Mica Mine. In *Maine Mines and Mineral Locations* by Philip Morrill they give 24 minerals found there: well we could not find one listed. We looked around for a while and then headed back.

The next day we decided to hit the Paris area. Quite by accident the first place we came upon was Corrett Mine. Found some small, brilliant black tourmaline xls in vugs, some doubly terminated ones in matrix, and an unidentified pink mineral mixed with feldspar. Then we stumbled upon Slattery Ledge and found some gemmy light pink quartz. Otherwise it was well picked over. After Slattery Ledge we went to Mt. Mica. The Irish Mine was completely picked over—did not find one specimen there. But, at the Tourmaline Mine we had a little more luck. Found some quartx xls, beryl xls, and small tourmaline xls. It was nothing spectacular though. We finally called it quits because of the heat, humidity, mosquitoes, and lack of finding specimens. I also mashed my finger with my four pound sledge.

This was the last day of my greatest collecting trip. I learned that working one area thoroughly pays off. This was Scottie Mine at Newry. I also drew the conclusion that Connecticut has some collecting areas that could surpass areas from Maine. The people up in Maine are really hospitable and have a good sense of humor contradictory to some reports I have heard.

Collecting in Connecticut

In September I took my last trip in the East before going to the Missouri School of Mines and Metallurgy, at Rolla, Missouri. This was to Gillette Quarry at Haddam Neck, Connecticut. In order to make this trip entirely successful I left home on Long Island at 5 a.m. Along the way I filled the gas tank and then realized that I will not have enough money to pay for all of the tolls to and from Haddam Neck. I had two alternatives: go to nearby Branchville or go to my relatives' home in Norwalk. I went to Norwalk and feeling like a cad woke them up at 6:30 a.m. to borrow a couple of dollars. I was off again at the sacrifice of valuable time. When I got to Gillette Quarry I decided to dig along the river all day. In so doing I found a specimen that was worth the whole trip—a quartz xl four inches high of a pleasing transparent brownish color with unmarred xl faces. Also that day I found some pink beryl, a couple of light bluish green gemmy tourmaline xls 1 cm. long, and a gemmy cleavelandite xl.

Collecting in Missouri

My next field trip was the first I was to take on foot. This was in September while at the Missouri School of Mines and Metallurgy. I walked from Rolla to the Buckland Mine, SE¼, NE¼, SW¼, Sec. 20, T.37N., R.8W., Rolla Quadrangle, Phelps County. While there I found globular hematite and small quartz xls. Nothing much for the collecting I was used to. Later that same month I was introduced to a new thing—caving. It is quite popular here since caves are plentiful. In this county alone there are 76 caves. The first cave I explored was Gourd Creek Cave, SE¼, SE¼, NW¼, Sec. 19, T.36N., R.8W., Yancy Mills Quadrangle, Phelps County. Collected a couple of small stalactites and a couple

of calcite xls. During the same day we visited the nearby Moselle Mine No. 10—Sec. 20, T.36N., R.8W., as marked on the Yancy Mills Quadrangle map. While there I found some amethyst xls., gray quartz, pyrite xls, and hematite. On my next trip that month I walked to the Rolla Mine—Sec. 15, T.37N., R.8W., Rolla Quadrangle, Phelps County. It consists of a few shallow pits with hematite all over the ground. Did find a specimen of limonate after pyrite xls. My last trip that month was to Granny Baker Cave—SW¼, SW¼. SW¼ Sec. 9, T38N., R.8W., Vienna Quadrangle. The cave was the most beautiful untouched cave I have ever been in. It was full of stalactites some of which were of white aragonite. Also found a calcite xl in the stream bed that goes through the cave.

During October and November I was too busy in school to do any collecting. I did get a part time job in the Mineralogy department here at the school.

Last field trip for 1957

My last field trip of the year took place when I went home to New York during my Christmas vacation. I again decided to go to Gillette Quarry at Haddam Neck, Connecticut. Did not find much this time—a couple of gemmy green tourmaline xls and some vesuvianite from the quarry wall. But, did meet a couple of old timers and by talking to them got some information which sometimes is more valuable than specimens. While home I also went to the nearby Glen Cove, Long Island, New York pyrite locality and collected some nice xls. Also a couple of large limonite geodes containing goethite.

This ended a truly successful year for me.

VISITING ROCKHOUNDS WELCOME

The following subscribers would be delighted to have rockhounds call on them when passing through their cities. If any one else wants his name added to the list, just let us know.

John & Clara Roder, ½ mile south of junction Hwy. 7 north & 70 between Hot Springs & Little Rock, Ark.

Mac & Maggie McShan, 1 Mi. west on Hy. 66, Needles, Calif.

Randall Bohmer, 208 Warren St.,
New Britain, Conn.

Mrs. John Branch, 3820 Ridge Ave.,
Tampa 3, Fla.

Maurice Lamb,
Niota, Ill.

Susan Tranter, 2 E. Walnut,
Sharpsville, Ind.

John Burmeister,
Preston, Iowa

Paul L. Doggett, 950—65th St.,
Des Moines 16, Iowa

Mr. & Mrs. Toivo Puranen, Ellis Rd., RFD 2, Box 67, Westminster, Mass.

Rev. M. Everett Corbett,
Acworth, N.H.

James B. Moore, West St.,
Antrim, N.H. Phone 154

Burl H. Van Dyke Rt. 1,
Boone, N.C.

Mrs. Daisy Lynn, 204 E. Dalton,
Hugo, Okla.

Edward Helpenstell, 1429 Sandpiper Dr.,
Houston 36, Texas

T. Nichols, Rt. 4,
Bowie, Texas

V. Sabin, 723 Steves,
San Antonio 10, Texas

Herman Kraege,
Lima Center, Wisc.

THE MICRO-MOUNTER

Conducted by Neal Yedlin—129 Englewood Drive, New Haven, Conn.

The second annual micro-mount symposium, sponsored by the Baltimore Mineral Society, has come and gone. It was twice as good as that of last year. And not merely because it was twice as long. There were greater interest, participation and continuity. There were exchanges of m/m material, free distribution of minerals by the host club, and the swapping of ideas and information. There were talks, demonstrations and workshops. There was true accomplishment, for everyone absorbed something in the way of mineralogical lore, and acquired new minerals for the m/m collection.

Full details will be in ROCKS AND MINERALS later. We do not want to duplicate the Baltimore club members' report of the affair. But a few highlights must be mentioned. Arthur Goodwin, program chairman, outdid himself. The organization, arrangements and timing were well-nigh perfect. Paul Yaffe, club president, and all members of the club deserve special commendation for sponsoring this national meeting.

Some of the highlights: Talks and demonstrations by P. E. Desautels, associate curator of mineralogy at the Smithsonian; L. Perloff; Miss M. Mrose, of the U.S. Geological Survey; Paul Seel; and Neal Yedlin. Subjects included "Classic Localities Producing Micromounts," "Photographing Micromounts," "Philosophy, Attitude and Techniques," "New Works in the Field of Mineralogy," and "Observations on Diamond Crystals."

The Baltimore club presented its second in a series of slide programs, shortly available to mineral clubs throughout the country. The subject, "Basic Crystallography," was illustrated by colored slides of models and micro-mount specimens, accompanied by a simple and concise script. With photographs and diagrams it set forth in admirable simplicity the basics of the six crystal systems, discussed symmetry, and illustrated fundamentals. The series was admirably conceived and executed by Horace Greene, Brian McMullin, and Charles Strobel.

Sixteen entries in the micro-mount competition provided four judges an afternoon of soul-searing evaluation. Utilizing a numerical scorecard, discussed in ROCKS AND MINERALS after a similar competition last year, winners were selected. The blue ribbon went to Paul Seel, of the Philadelphia Mineral Society, for a fine entry consisting of a series of natural diamond xls, of rare and unusual forms and colors. They were superbly mounted, and could be utilized as ideal models to illustrate advanced crystallography in the isometric system.

Again we point out a most important feature of this meeting. There were no onlookers. Everyone participated—by choice. We're already looking forward to next year's session. This is being written the day after the symposium ended. We just can't wait.

Here is one of the best book investments ever offered. Want a descriptive text of the radioactive minerals of the Belgian Congo? With photographs of 27 species in full color? Well, the title is: "Mineraux D'Uranium Du Haut Katanga." Published by "Les Amis Du Musee Royal Du Congo Belge." Make your regular check for $4.80, payable to their order, and send it to them at Torvuren, Belgium. Sure, it's in French, but easy reading because the mineralogical terms are familiar and the pictures, of course, are in a universal language.

A letter in the mails recently, together with specimens. Read what Dick Thomssen, of 2818 N. Richey Blvd., Tucson, Arizona, has to say about a new find:

"In my capacity as a geologist for The Anaconda Company I have recently been

mapping the Defiance Mine, Gleeson, Cochise County, Arizona. Richard Bideaux wrote an article on the wulfenite from this mine in the March-April, 1957, issue of THE MINERAL EXPLORER.

"In a section of the mine above the large pockets of wulfenite I ran across a pocket about 2 by 2 by 3 feet in the wall of a small vein. This pocket was lined with crusts of small pyramidal wulfenite crystals almost completely covered by plattnerite. Thin hairlike prismatic needles liberally coat the slightly etched wulfenite and apparently formed at its expense. Twinned crystals of the V-type (twin plane—011) are abundant. The second order prism tends to be enlarged, expanding the V parallel to (100). This feature makes the twins much more obvious than the singles. Geniculated aggregates of twins are not common, but are obvious by their size and complicity. This is, incidentally, the first occurrence of the geniculated twins that I have seen among the various localities from which I have specimens.

"Associated with the wulfenite and plattnerite on the wall of this pocket formed by the vein were crusts, radial aggregates and single crystals of willemite. On one small area of very tiny willemite crystals were many small needles and a few twins of plattnerite. This is the first occurrence of this particular association that I have seen."

And in a later missive:

"I am sending you a small specimen of the plattnerite on wulfenite for you to verify the following remarks. The plattnerite needles (single crystals) are brownish red in color. This is in marked contrast to the black color which I have noted for all other specimens outside of this locality. You will note that Dana mentions plattnerite as appearing brownish red in thin-section. Apparently in addition to being relatively free of impurities, this Defiance plattnerite is very finely crystallized. I would estimate, and I'm not very good at such things, that the average crystals are less than 100 microns thick in the (100) zone. This would be equivalent to one hundredth of a millimeter.

"Further, it appears that the plattnerite crystals, both singles and twins (simple and geniculated) are preferentially oriented with the c-axis of the plattnerite crystals parallel to (hh1) or (h01) as the case may be with these wulfenite crystals. Just what the indices of the exact pyramid are is a problem for the morphological crystallographer. The one thing that impressed me most about the orientation is the manner in which the twins satisfy the preferential positioning. You will notice that the (100) faces of the twins are parallel to the c-axis of the wulfenite. In this position the c-axes of the two or more plattnerite crystals composing the twin(s) are oriented in their proper position with respect to the pyramid, i.e., at right angles or normal to some (hh1) or (h01).

"I have discussed this rather interesting occurrence with John Anthony, Professor of Mineralogy at the University of Arizona and he thinks that a description of this should be put in literature. Right now I'm already working on one of those problems, a description of an occurrence of davidite in Arizona with Dr. A. Pabst of the University of California. I don't know if I can handle another job like the one this is turning out to be. Will keep you posted on developments in any event!"

The time of the year is now approaching when the results of our spring, summer and fall forays into the field can be evaluated, tabulated and perhaps added to the collection. For years we've brought home masses of rock from the field, always with the thought of a long, hard winter ahead with the ground covered with ice and snow. And in the sanctuary of our cellar we've smashed, sawed, examined and discarded hundreds of pounds of negative material, but have always come up with those few ounces of xls in vugs that have made the rest of the year worthwhile. We hope that you, too, will be doing the same. Here's luck. And tell us about it.

THE AMATEUR LAPIDARY

Conducted by Captain George W. Owens

Hq. Sq. 384th Bombardment Wing, Little Rock Air Force Base, Jacksonville, Arkansas

Amateur and professional lapidaries are cordially invited to submit contributions and so make this department of interest to all

NOTES ON ENGLAND

By GEORGE W. OWENS, CAPTAIN, USAF

In the past year and a half the author has spent over four months in England. True, travelling opportunities were somewhat limited but trips to several world-famous mineral localities were made as well as trips to the Hatton Garden area of London where the fine gems of the world are bartered, traded and sold. Other travels were to resort towns where an extensive search of antique shops, removers, and small "junk" shops were always on the program.

Many items of interest were seen, including art objects such as statues in marble and bronze, excellent paintings, mosaics and antique jewelry. Fine gems of practically every variety known to man were available in the various shops in Hatton Garden. Rubies, diamonds, sapphires and countless other gems including a beautiful emerald of twenty-some carats weight were displayed for my pleasure. One stone, a large and beautiful morganite, was breath-taking in its outstanding beauty. This stone was being set in a lovely gold mount by George Lindley of St. Andrew's House, Holborn Circus, London ECI. The Lindley firm is known for its fine gems and the beautiful workmanship they display in their craft. Mr. Lindley was kind in showing me a portion of their extensive collection of fancy stones. The most intriguing display seen while in England was the beautiful cabinet of rough gems and gem materials in Mr. Lindley's establishment. Gem opal chips were attractively displayed along with an extremely large matrix opal; rough emeralds, sapphires, and crystals of topaz all were laid out as a beach scene. Twigs of precious coral were arranged to represent a forest. The effect achieved was one of the most beautiful displays I have ever seen. Sad, but true, is the fact that this was the only such private display seen in the entire land of our cousins, the English! Oh yes, the museums had outstanding mineral displays. That of the Geological Museum rivaled our Smithsonian Institute. Their gem collection was even better in that the number and large size of their rare stones was astonishing. But private collectors of gems? With the exception of Mr. Ken Parkinson, 11 Fitzroy St., Hull, England, it is not believed that a single amateur lapidary exists. Why so backward, oh cousin? What has happened to your usually fine judgment in selecting interesting hobbies? Don't you know that all the world except you has opened its arms and embraced this fine hobby of stone cutting and collecting? Or are you not aware that many of the world's interesting gems are found within the borders of your island? Cairngorm from Scotland is known the world over and commands respect wherever it is shown. Amber picked up on the beaches of your east coast has been fashioned into many a fine gem. The lovely and beautiful "Blue John" appears in many forms in private collections from coast to coast in these United States, yet it was a difficult task to locate a bit of it in your fair isle. I was amazed at the apparent lack of appreciation for fine stones that were discovered in your land.

Among the many beautiful pieces

bought and added to our collection was an outstanding egg-sized piece of lapis-lazuli—in fact, it was fashioned as an egg and had originally been in St. Peter's Cathedral in Russia. For this large and beautiful gem the stupendous price of seven shillings was paid—less than one dollar. Also a few beautiful agates and fine mocha stones exquisitely fashioned, were bought at very modest prices.

Several mother of pearl carvings, whose original use were as "markers" for a card game were bought in a little shop around the corner from a busy thoroughfare in Oxford, the famous college town. These markers are of outstanding workmanship and beauty. The carvings represent life in the Orient and no two are alike. One would really have to see them to appreciate the fine and delicate craftsmanship displayed. Of all the items collected these stand right at the top of the list for beauty and eye appeal. If you do not have mother of pearl represented in your collection here is your opportunity to add this lovely item as several of these beauties are in the trade box.

Other items were found in "junk" shops, and in window displays in antique stores. Perhaps the finest single piece of art obtained was a lovely figure carved in serpentine. The workmanship is of extremely high quality. This fine piece was located in Cheltenham at a "Remover's" (a "remover" is a storage house and transfer trucking firm). Such places, both here and abroad, often have odds and ends of unclaimed merchandise for sale.

Two fine Arabian knives, one studded with gem opal, garnet, and turquoise, the other a fine example of silver working were located in the same removers.

Various cabochons of mocha stone, agate, and fine Whitby Jet were also found in Cheltenham. Whitby Jet is hard to find and not many American collections have a piece of this top quality jet, but a specimen is a necessity for every collector of the rare and unique. There are several pieces in my trading box.

Fine andalucites, true gem spinels and excellent iolites were bought from Mr. Lindley at reasonable prices. Several of the iolites were of museum grade. The best and finest one was added to the collection and the balance placed in the trading box with the exception of one moderate but large stone which was presented, along with a small andalucite, to a splendid chap, Mr. Walter Nicholson, of Dunbar, Penna. who, while a newcomer to our hobby is certain to have a fine collection in the future as he is the most enthusiastic fellow as you would ever want to meet. The beauty of transparent gem andalucite cannot be adequately described to those who have never seen this fine gem. Mr. George Bruce of the International Import Company, 604 Peachtree St., N.E., Atlanta, Ga., has some of the most beautiful and well cut andalucite that I have seen in years. Since this is a rare stone, and by all means should be in your collection, why not write Mr. Bruce and ask to see any of these fine beauties. They seldom come as fine as these. In fact, it is quite a rarity to even see one, let alone being able to choose from several. So, get that letter in the mail while they are still available.

Several examples of Victorian glass were purchased as gifts for a friend. Each piece was sterling bound and Hallmarked.

Three fine jades and two excellent jade snuff bottles were also added to the collection as well as a fine porcelain snuff bottle. The porcelain bottle is most unique in that it has the original cap and is completely intact. The enamel work on this bottle is delightful to the eye and most pleasing. It appears to be Korean of the late *koryu* period and as such is a most valuable and rare item as well as a lovely work of art.

All of these items and several others were acquired by regular purchase and were available to all. Each is of the finest workmanship and none are "second quality." While it is realized that not all these objects actually come under our lapidary hobby, they are mentioned

to show you the many possibilities that exist in this field of many facets. One need not confine his collecting to straight faceted stones or cabochons but may enhance his collection and den with a few such pieces as these. Any one of these objects is definitely a "conversation piece" and worthy of being shown with the very best.

England is a land full of fine gems and art objects just waiting for us "Yanks" to go over and add them to our collections since our English cousins seem disinclined to get started in this most fascinating hobby of ours.

Nothing in this article is intended to be disparaging to our English friends yet one does wonder why, with their reputation of astute acumen, they have not embraced this interesting and pleasing hobby of Rocks and Minerals.

A letter from South Africa!

Editor R&M:

I have now been subscribing to R&M for over one year and find it extremely interesting. Can't afford to miss even one issue, so I have renewed for another year.

Namaqualand is quite rich in minerals so that many people are actively engaged in prospecting. Enclosed is a photo taken in front of the home of one of the local prospectors. The word "prospekteerder" is of course the equivalent of prospector.

Don't you think the man's name is fitting for his trade?

Please list my name in Collector's Corner as I would like to hear from American rockhounds.

Deo Hugo
Ookiep Hotel
Ookiep, Namaqualand, C.P.
South Africa

A prospector in Namaqualand, South Africa, hangs out his shingle.

"Walnut" Marcasite nodules from Norwood, Mich.

We have received some very interesting marcasite nodules from the Minerals Company, Box 131, Sta. C, Grand Rapids 6, Mich. The specimens are loose, dark bronzy brown in color (some round, some flattened), and 1¼ inch in diameter. These nodules are one of the interesting minerals which this new company is offering collectors (see their ad in this issue). The following data sheet accompanied the nodules:

Charlevoix County Marcasite

Locality: Norwood, Charlevoix County, Michigan.

Occurrence: Nodules in Antrim shale.

Identification: By physical properties and occurrence in shale, confirmed by chemical tests. See also "Rocks and Minerals of Michigan", Geological Survey Division, Department of Conservation, pp 59 and 61.

Notes: These nodules are found embedded in the Antrim formation, a Devonian-Mississippian shale, and usually are in the general shape of an English walnut, although some are considerably distorted. The plane of the belt, or larger diameter, of the nodules is always oriented parallel to the layerings of the rock, which are distorted both above and below the marcasite. The layers separate from the mineral more or less easily. The nature of the embedment leads to the observation that the mineral was laid down along with the sediments which now form the shale, and that subsequent hardening pressures tended to flatten the nodules, forcing some of the material out between the layers of the rock. The embedment greatly resembles that of very small pebbles between the pages of a book.

The shale outcrops along the shore of Lake Michigan and the nodules are released from their beds by the wave action and freezing of the water. A very few of the nodules, after being freed from the shale, are trapped in channels in the rock along the water's edge where the waves roll them back and forth until they become quite smooth, and sometimes round off to almost perfect spheres.

Occasionally thin drusy deposits of pyrite crystals are found similarly embedded between the plates of the rock.

Specimens available: Unweathered Nodules. Specimens partially cleaned of rock, showing typical in situ occurrence. 1 x 2 inches, $1.00, ppd. 2 x 3 inches and over, from $2.00, postage extra. Sizes approximate.

"Walnut" Nodules. Mostly of typical walnut-like shape, as weathered from the shale. Lightly cleaned. One or more nodules, total weight about 2 ounces, $1.00, ppd.

"Spheres". Range from completely smooth but somewhat irregular in shape to nearly perfect spheres. Relatively rare. Sold by weight, up to ⅝ inch diameter, $1.00 per ½ ounce, ppd. To 1 inch diameter, $1.50 per ounce, ppd.

Pyrite. Small crystals on shale. 1 x 2 inches, $1.00 ppd.

(All specimens, especially "spheres" and pyrites, are offered subject to availability from stock.)

THE MINERALS COMPANY
Box 131, Station C
Grand Rapids 6, Michigan

Suggests Special Alaska Number!

Editor R&M:

The July-August R&M arrived this week and while I have had only time enough to hastily gaze through it, a thought comes to mind: it would seem very appropriate at some time in the very near future, to do a similar edition, to commemorate the admission of Alaska as our forty-ninth state. If I recall correctly, the last state to be admitted was Arizona in 1912.

Gerald Navratil
Box 70 RFD 2
Middleburgh, N. Y.

July 15, 1958

THE SAND COLLECTOR

CONDUCTED BY PETER ZODAC
PEEKSKILL, N.Y.

Zircon sand from Gorda, Calif.

"Under separate cover I am mailing a sample of sand gathered on the long sand beach near Gorda (Monterey Co.), Calif. This beach is just north of Jade Beach where nephrite or Monterey jade is picked up by collectors.

"The sand was scraped up along the wave marks left by the receding water. In the sunlight it had quite a noticeable reddish color and was easy to see against the white sand. While not too plentiful, it took only a few moments to gather a sample. I am curious to know what made the reddish pattern—garnet particles perhaps?

"The Sand Collector has been an interesting part of the magazine."—letter dated Feb. 8, 1958, from M. M. Smith, 746 Cypress St., Monterey, Calif. (A beautiful sketch of the beach in red, brown, green and blue accompanied the letter.)

The sample is a fine grained, dark gray sand consisting of smoky quartz, pale pinkish garnet, black lustrous ilmenite, black lustrous magnetite, and colorless zircon that fl. orange. It is the garnet that gives the sand its reddish color.

Gorda, in S.W. Monterey County, is on the Pacific Ocean.

Creek sand from Cherry Creek, Nev.

"This sand comes from the creek (Cherry Creek) by the bridge where the creek runs through the small settlement of Cherry Creek (White Pine Co.), Nev. At one time this creek was panned for gold but the creek is dry now and the water is taken out for irrigation several miles above this point. Sand likely to contain gold."—on label of sample that was sent in by an anonymous reader.

The sample is a dark gray, coarse sand consisting almost entirely of quartz (smoky, white) with biotite. Much of the biotite is altered—looks golden so that it does resemble gold in color (no gold seen in the sample).

Cave sand from Glenwood, N.J.

"Was driving through Glenwood (Sussex Co.), N.J., and I thought of you and your interest in sands. Enclosed is a package of sand from Glenwood Shelter Cave.

"A small stream flows from the cave which is located at the edge of a large stream. The cave extends under the Glenwood-Sussex Road for 30 feet or more. The rear is a discharge for an underground stream. At the entrance was a small pool which contains sand and gravel. During the high water some sand may wash in from the large stream. The cave is in the Franklin white limestone and you may find several minerals associated with this type of limestone. It was from this cave that police officers dragged a murdered man out with hooks some 30 years ago."—label with sample that was sent us some few months ago by Lawrence O. Chapman, 41 Church St., Franklin, N.J.

The sample is a coarse, dark brown sand. It consists of quartz (smoky, brown-

ish, colorless rock crystals with sharp faces), dull black magnetite, white mica, grayish feldspar, brown limonite, gray sandstone, and gray to red slate.

Garnet sand from Orient Point Beach, N.Y.

Orient Point Beach (Suffolk Co.), N.Y., is at the extreme N.E. tip of Long Island—a narrow, fish-shaped island, 118 miles long and 12 to 23 miles wide. Long Island forms the southeastern part of New York and embraces four counties.

We have a sand sample from Orient Point Beach that was sent in by Donald Grisky, Rt. 1, Old Lyme, Conn. It is a fine grained, dark red sand consisting chiefly of pink to red gemmy garnet with minor amounts of quartz (colorless to smoky), gray to brownish feldspar, black lustrous magnetite, black lustrous ilmenite, and some colorless zircon that fl. orange under the Mineralight.

"Beach sand from Orient Point Beach, Long Island, N.Y. Taking a motor boat ride, we went to Long Island directly across from Saybrook, Conn., to Orient Point, where on the beach we collected this sand which was along tide marks."—on label.

River sand from near Mifflin, Ohio

On July 5, 1952, when the conductor of this department was traveling through northern Ohio, a stop was made at the west end of Charles Mill Reservoir on US 30 in Ashland County (near the Richland County line) to collect a sand sample. This section is an enlarged portion of the Mohican River—the enlarged portion is due to Charles Mill Dam, some distance to the south. There is a little beach here, a few hundred feet from the road, and a two-pound sample was collected. The sample is a very coarse (had to be screened) dark gray sand consisting chiefly of quartz (clear, smoky, brownish), pinkish feldspar and gray sandstone with a small amount of black magnetite.

Pumice sand from Oregon

From southern Deschutes County in Central Oregon, we have a sample of pumice sand that was sent in by Mrs. Inez O. Rogers, P.O. Box 184, Oakridge, Ore. The sample is a coarse, gray sand consisting chiefly of gray pumice with some black lava.

"This is pumice sand from East Lake, Deschutes Co., Ore. The pumice made Ripley's 'Believe It or Not' because it is a rock and floats in East Lake. East Lake is a twin to Paulina Lake. Paulina Lake is named for a renegade Indian chief. There is black obsidian in the lakes and flows of it on both sides, tons and tons of it—a Red man's 'weapon shop'.

"I would be glad to send vials of this sand to any collector interested."—on label (be sure to send some stamps for postage).

This is the first pumice sand from U.S. we ever saw.

Beach sand from Tangier Island, Va.

From a beach on Tangier Island in Chesapeake Bay (Accomack Co., Va.), we have a sand sample that was collected for us by Bob and Hazel Reynolds, R.D. 2, 470 Stockdale Rd., Glenarm, Md. The sample is a medium grained, gray sand consisting entirely of smoky to milky quartz.

A letter from the Reynolds, dated Sept. 18, 1957, reads:

"We thought you might like to have some statistics on Tangier Island, Va. It is in lower Chesapeake Bay and is approximately two miles wide and four miles long. It is reached by mail boat from Crisfield, Md. It is composed mainly of marsh interlaced by canals. The western shore has receded over the years due to erosion. There are three ridges of high land running north and south, connected by tiny bridges and occupied by homes of the 1200 residents. Except for tiny garden plots there is no open land.

"The main bathing beach on the southern end is reached only by boat. We were told that it is gravelly, but we did not get to visit it. The western shore of the island is reached from the West Ridge via a foot path across the marsh. This beach is composed of a narrow strip

of sand separated from the water by a few feet of stubble (dead marsh grasses). It was in this stubble that Bob found six arrow heads one evening. The school superintendent informed us that material for them came from near Pocomoke City, Md. It was from this beach that the sand sample came. We have samples which we'd like to trade for nice minerals if any of your subscribers are interested. We also have a good color photo of the beach which we'll send along if you want to print it. The sand from this beach is coarse, and pebbles are few and tiny. We found milky quartz, red quartz, gray and tan sandstone and mica schist, among others. Mostly quartzes, but very little basanite and jasper. We are in the process of classifying our pebbles from there, now."

River sand from Rush River, Wisc.

On July 3, 1952, the conductor of this department collected a sand sample from Rush River (Pierce County), Wisc., where it is crossed by US 10. A sand bar 200 feet long and 60 feet wide borders the west edge of the river which at this point is about 125 feet wide. The sample is a medium grained, brown sand consisting almost entirely of quartz (brown, smoky, some red jasper); a small amount of brown limonite and black magnetite also present.

Cinnabar sand from Arcana Creek, Alaska

Our good friend, Frank Waskey, Oakville, Wash., donates another interesting sand sample—a cinnabar sand from Arcana Creek in Southern Alaska. This is a medium grained, brick-red sand consisting chiefly of red cinnabar with small amounts of reddish magnetite (black magnetite stained red by cinnabar) and a tiny amount of red quartz (smoky quartz stained red by cinnabar). Cinnabar is the chief ore of mercury.

"Cinnabar sand, sluice box concentrates from Arcana Creek, tributary Wood River, Alaska. Latitude 59° 10', longitude 158° 15'."—on label.

Lava sand from Ascension Island

Ascension, an island of volcanic origin in the South Atlantic, belongs to Great Britain. It has an area of 38 sq. miles. The island in mountainous, one peak rising to the height of 2870 feet. It was discovered in 1501 by the Portuguese on Ascension Day, hence its name.

From the island we have a sand sample that was sent us by Sandy Ramsay, 1015 Aikenhead Road, King's Park, Glasgow S4, Scotland. The sample is a coarse, dark brown sand containing about 90% of rough angular fragments of brown to black vesicular basaltic lava. There are a few clear, colorless grains of glassy feldspar which could easily be mistaken for quartz except for their cleavage. Dull black magnetite also present.

"Lava sand from a hillside on Ascension Island, Atlantic Ocean."—on label.

Beach sand from Moa Island, Australia

Off the northern coast of Queensland, Australia, lies Moa Island in Torres Strait. From Moa we have a sand sample that was sent us by Kelvin Green, F.G.A.A., 37 Carlotta St., Sydney, N.S.W., Australia. The sample was sent a few months ago when he was stationed on the island. The sample is a coarse grained, pale brownish sand consisting chiefly of quartz (smoky, pale brownish) and feldspar (white to gray). Some gray, cellular pumice and many sea shells (white, pink, gray, blackish) also present.

"Moa (or Banks) Island is in about the centre of Torres Strait, midway between New Guinea and Cape York Peninsula, Queensland, Australia. The sand from there was from St. Paul's Mission (Anglican Catholic) on the southeast side of the island. Dimensions of the island are roughly nine miles by 10 miles. The island has minor intrusions of basic rocks but is otherwise almost exclusively of Archean granite. Its contours show rather markedly the effect of glaciation."—letter dated Jan. 15, 1958, from Mr. Green.

Moa and other islands in the Torres Strait belong to the State of Queensland. (See R&M, March-April 1957, p. 135 for a long item on Moa by Mr. Green).

Beach sand from Bangka Island, Indonesia

Bangka or Banca is an island in the Malay Archipelago belonging to Indonesia, about 10 miles west of Sumatra, from which it is separated by the Strait of Banca. It is about 100 miles long and and has an area of 4977 sq. miles. It is celebrated for its tin mines, which are very productive.

From Martras Beach, on the west coast of the island, we have a sand sample that was sent us by Miss Natalie E. Nason, Lincoln School, S.V.P.M., Pendopo, Sumatra, Indonesia. The sample is a very fine grained, gray sand consisting chiefly of colorless quartz with smaller amounts of sea shells (brown, white).

The island is sometimes spelled Banka.

Volcanic dust from Mt. Vesuvius, Italy

From Mt. Vesuvius, Italy's famous volcano, we have a sand sample that was sent us by Sandy Ramsay, 1015 Aikenhead Road, King's Park, Glasgow S4, Scotland. The sample is a fine grained, grayish sand (dust). It consists chiefly of gray lava with some black magnetite.

Vesuvius, a volcanic mountain 10 miles S.E. of Naples, Italy, with a basal circumference of about 30 miles, rises from the center of a plain 2300 feet above the sea.

"Volcanic dust. From the April 1906 eruption of Vesuvius, Italy."—on label.

Lake sand from Loch Earn, Scotland

Loch Earn, a lovely highland lake, seven miles long and more than half a mile wide, is in Central Scotland (in S.W. Perthshire). From its western shore, at Lochearnhead, we have a sample of sand that was sent in by our faithful Scottish subscriber and correspondent, Sandy Ramsay, 1015 Aikenhead Road, King's Park, Glasgow S4, Scotland.

The sample is a coarse, dark gray sand consisting chiefly of quartz (colorless, smoky) with some gray cyanite and gray to dark gray mica schist.

The best sand story we ever heard!

In the March 1958 issue of the *Bulletin* of the Rollin' Rock Club, Phil Plimmer of Alpine, Texas, had the best sand story we ever heard. It goes like this:

"One time when I was prospecting out west of the Big Bend Country (of Texas), nightfall caught me without a camp set up. It was fairly barren country, but I found a little bush up on a hill and tied my burro there. I found a fairly good place to sleep down at the foot of the hill. I awoke next morn, found the hill gone. I figured I must have done a powerful lot of rollin' in my sleep. Near me was a very tall tree and a noise up in it attracted my attention, because it sounded like a burro!

"I looked up and sure enough, there was my burro hanging from the topmost limb! Before we got in this place, the night before, the wind had piled sand up around the tree until only the tip stuck out, and it looked just like a bush on a hill. During the night, the wind had blown all the sand away!"

Both Phil Plimmer and the Editor of the *Bulletin* (Ken Kyte, P.O. Box 161, Covington, La.), are subscribers of R&M. Incidentally, the Rollin' Rock Club is a mighty good organization for the lonely rock hounds who have banded together so that they may belong to an official Rock Club. Though chiefly for the lonely rock hound, anyone can join the club—for example, the Editor of R&M is a member. Dues are only $3.00 a year—send your $3.00 right away to Mrs. Leigh C. Thompson, Secretary, Rollin' Rock Club, 1674 Oliver St., Rahway, N.J.

Helps plug R&M!

Editor R&M:

Enclosed please find $6.00 for two subscriptions to go to two new members of our Nassau Mineral Club.

I appointed myself to "plug" your magazine to which I owe much, as I have told you from time to time.

Mrs. W. F. Busching
100 Carpenter Ave.
Sea Cliff, L.I., N.Y.

Must have been a rockhound!

Editor R&M:

We have heard the expression, "A thing of beauty is a joy forever." Whoever said it first must have been a "Rock Hound" and perhaps lived in the beautiful Hiawatha Valley where the Lake Superior agates are found.

John M. Krogstad
Pepin, Wisc.

ROCKS AND MINERALS ASSOCIATION
(International)
NOTES & NEWS
Don Presher, Pres. Box 29, Peekskill ,N. Y.

FRIENDS: Your response to the message delivered thru the Association Notes and News has been very gratifying, especially in view of the printer's deadline which allows me only ten days to receive your reply before preparing the column for this issue. This does not give me much opportunity to report on your response, however a surprising number must have responded by return mail. Despite my confidence that you would see the real and lasting beneficial results of being a part of this Association of ours, I was truly impressed by the number of replies in such a short time.

It appears from the comment and opinions expressed thus far, that identification is of prime importance and should receive our immediate attention. I shall endeavor to secure information in regard to metal insignias to be mounted over license plates, also will check on shoulder or pocket patches; if anyone has any helpful information on this I would appreciate receiving same.

It has been suggested that our member-dealers display our insignia in their business establishments and in their advertisements. It is obvious that the results of dealing with your fellow members would be beneficial to both parties, (to members in business, how about your thoughts on this).

Can anyone other than subscribers to ROCKS AND MINERALS become members of the Rocks and Minerals Association? was another question asked. The answer is yes—a subscription to ROCKS AND MINERALS entitles any interested member of the family who is willing to help build the respect and prestige enjoyed by our Association to membership. They are both welcomed and needed—just send your self-addressed stamped envelope and please feel free to express your thoughts and comments as they are most welcome.

This is your Association and in order to truly represent you and reflect your character, your help is necessary, incidentally if anyone is concerned about age limits, the proverbial nine to ninety can be stretched if it is necessary.

Your observations on the many benefits enjoyed through our Association has been very encouraging and indicates the kind of people you are. Invariably the opportunity to help others is placed at the head of the list, it has increased my pride in being among your ranks.

I think that I should make several things clear. There are no strings attached or no gimmicks connected with membership in this Association. There are no fees or dues to pay, no qualifications other than being a member of a family subscribing to ROCKS AND MINERALS and having an interest in minerals or a related subject and a willingness to help others whenever possible.

I would like to see every Rock Hound, man, woman and child proudly displaying their RMA emblem wherever and whenever possible. How much more enjoyable and fruitful our prospecting trips would be if we were able to recognize our fellow members who will gladly help in any way possible.

A last minute check of the mail before going to print offers another thought. It is suggested that the letters RMA be added in bold letters over our emblem, wherever it is to be used for display or identification purposes in order to be readable and recognized from a distance. Sounds good to me. How does it strike you? Anything that will help to identify

us to each other or prompt questions from our future members is to our advantage.

I will do my best to answer your questions, but must ask you to bear with me and be patient as time has its restrictions. I consider communicating with you to be a pleasure and a privilege and will do so as fast as time permits. I hope that you will continue to write and express your opinions and—to those of you who have not yet applied for membership let's not wait. We need you!

Some advantages of membership: all members in good standing receive:

1. A member's identification card that enables them to share the respect and privileges accorded to the Rocks and Minerals Association. 2. The right to display a certificate of membership and to place after their names a designation indicating their membership or to advertise membership on stationery, etc. 3. The distinction and the prestige which comes from membership in the world's largest mineralogical society.

Please send a self-addressed stamped envelope when applying for membership card.

Cuba Has A Buried Treasure—

100,000 Tons of Manganese

Cuba is well known for its surface richness—verdant foliage, deep blue waters, abundant crops. But underground, imbedded in rock and earth, lies a 100,000-ton treasure of a precious mineral—manganese.

The importance of manganese is its use in the manufacture of glass and pigments, in calico dyeing and printing, and as an oxidizing agent.

Manganese mining in Cuba is carried on solely by Inter-American Industries, Inc., the largest chemical grade manganese producers in the Western Hemisphere.

So huge is their operation, conducted chiefly at Cambute in Oriente Province, that the company has built its own dam to provide water for its mill. In addition, Inter-American Industries has erected necessary housing facilities and administrative buildings, installed electric power plants, and built a road connecting Cambute with the main highway to Santiago, 35 miles to the west.

Chances are, too, that this "corporate city" may be duplicated in other parts of Cuba, because Inter-American has 17 mining claims in the Los Negros area, 15 miles west of Cambute, and four claims around El Iris, just northeast of Santiago.

Most of the manganese produced comes from underground ore bodies, extracted from rock by drilling and blasting operations. In some areas, however, where the ore is lodged in nodules only 12 to 18 feet below the earth's surface, it is removed by bulldozers.

FRANK DUNCAN FUND

In the Sept.-Oct. and Nov.-Dec. 1957 issues of R&M there appeared articles relating to Frank Duncan Fund. (Mr. Duncan is an aged mineral dealer who is up against it financially). We had hopes of raising $500 to be sent him as a nice Christmas present.

Only $185.10 were raised and this was sent him, Dec. 16th—not as a gift but as a loan (at his request).

Since then $53.00 more has been received, as follows:

Francis D. Emery, Old Orchard Beach, Me.	$5.00
Roy M. Fitts, Yarmouth, Me.	2.00
Fran Schiller, Luke, Md.	2.00
Mrs. John J. Tamburri, Morganville, N. J.	2.00
Robert Wilken, Red Hook, N. Y.	2.00
Anonymous (Ohio)	10.00
Mrs. Richard Fischer, Grand Junction, Colo.	10.00
Anthony Thurston, Morningdale, Mass.	2.00
Sheila Ann Gerhart, Reading, Pa.	2.00
Bob Hayley, Seymour, Texas	5.00
Mrs. Joe Sheriff, Shell Lake, Wisc.	1.00
Kenneth Parkinson, Hull, England	5.00
Juan Montal, Vilafranca del Pamades, Spain	3.00
Howard B. Graves, Jr., Lakeland, Fla.	2.00
Total	$53.00

We will hold the Fund open for a few weeks in the hope that more contributions may be received.

Readers, if they so desire, may send their contributions direct to Frank Duncan, P. O. Box 63, Terlingua, Texas.

Mineral Dealer Makes Good!

Editor R&M:

No doubt you'll remember me as a steady advertiser for many years but until now I've never been much of a contributor to other sections of your fine little magazine. The article on page 380 of your July-August 1957 issue by John Albanese finally "did it". Now I'm going to sound off! With all due respect to Mr. Albanese, Mr. Duncan and their experiences in the mineral business I feel entirely different about the matter and so shall set forth a few of my own ideas about the business of supplying specimens to collectors. I'm just entering my 12th year of full time mineral business and so far I honestly feel that the business has been kind to me and my family. As far as financial returns are concerned I've managed to make a fair living all this time. While my yearly income has been rather skimpy I've managed to purchase a comfortable home for my family, raised and educated 4 children and built and own the present store building planned especially for the business. One reason for this has possibly been that I've worked *full time* at the business, not as a hobby or extra income but every effort has been directed at the business that I expected my living from. I do not see how anyone can expect to devote only spare time and then expect it to develop into a full time occupation with suitable income. I could easily mention a half dozen dealers like myself out here in the west who have been at the business for years, devote their total effort and enjoy a suitable income from it. I'd be the first to admit that there are gripes to contend with but is there *any* business without gripes? I doubt it.

People are the same the world over and there will be gripes in any business. I've always planned my purchases carefully, obtained material from reliable suppliers and sold them to folks all over the U.S. at fair prices. Complaints have been few and often due to some carelessness on my own part. For the most part I've found that mineral collectors are the best people to be found anywhere and I'm proud to say I've made friends among them in every state in the Union and others around the world too. Folks have paid my prices with few complaints and many customers re-order over and over from us. We have several customers that have been with us for 8 years now. We here have seen a steadily growing mineral collector hobby and a constant need for more and better specimens. Our files contain many letters from pleased customers who like our specimens, our prices and our general efforts. I should mention here too that I've always believed that there were other things besides money. People for instance. How else would I be able to take a trip anywhere in the U.S., be welcomed into homes as a friend? How else could I have folks dropping into the store daily from nearly everywhere and being glad to see me after having dealt with me for years? What other job will give a fellow complete happiness in every phase of the work, buying, selling, wrapping, writing, explaining and yes getting up in the middle of the night to take an order on the phone too? I knew a few of the old timers too including Al Everett and knowing Al well I can say that he found happiness and profit in his work right up to the day of his passing. I personally believe that the mineral business is more pleasant than most businesses because we are dealing with folks engaged in a pleasant hobby. They are spending their money to have fun. I too share the fun. It's lots of satisfaction to pack up a shipment knowing how my customer will enjoy opening it when he gets home from "the daily grind" some evening. Folks are honest about payment too. We probably have less credit loss in a year's time than any other business I know of. Yes many dealers "give up the ghost" after a year or two but records will prove the same in any other business. Few people seem to realize the many requirements for a successful business. They start on a shoestring, put in too little effort and then complain because the business will not make them a living. The various mineral publications have done a wonderful job for us dealers, without them we could never manage to reach the vast market for our goods. Since 1926 ROCKS AND MINERALS has been the "old reliable" for us. More power to you. And more fun and happiness to you collectors who read this too. You are fine folk

to deal with and have given me many happy hours in my everyday work. I'm sure lots of other dealers will say the same thing too. The case of Mr. Duncan is indeed regretable but similar things might occur in any business to anyone. I believe a closer more friendly relationship in doing business will do wonders for both dealers and customers. Most folk are fully aware of present day inflation, costs of doing business, expenses and problems. They will not mind paying prices that they believe are fair. As a parting shot I would say a great big THANKS to your readers, they are the finest ever and are the backbone of my own and many other mineral businesses.

Yours sincerely,
Roy Plummer
Plummer's Minerals,
San Diego, Calif.

Chicago Natural History Museum sends expedition to Wyoming

Fossil mammals of the middle-Eocene epoch (about 50 million to 45 million years ago) are being sought in the upper and lower formations of the Washakie Basin, a remote mountain area of Wyoming. Leader of the expedition is William D. Turnbull (106 Sauk Trail, Park Forest, Ill.), assistant curator of fossil mammals. He is accompanied by David Collier, 16 years old, (5632 S. Kimbark Ave.), a volunteer assistant. Young Collier is the son of Dr. Donald Collier, the museum's curator of South American archaeology and ethnology. Collier (senior) is at present at San Jose, Costa Rica, as official delegate from the museum and the American Anthropological Association to the 33rd International Congress of Americanists, after which he will travel in Mexico for anthropological studies.

The Wyoming paleontological expedition is Turnbull's third venture in the Washakie area. He was highly successful in 1956 and 1957 in obtaining skeletal material of the ancient fauna for the museum's collections. He reports that prospects of obtaining additional species of fossil mammals, reptiles and fishes are promising in the current season of excavations.

A nice gift for the Library!

Editor R&M:

Recently I looked for a copy of R&M at our local library and did not find it, so I am enclosing $3.00 for a one year subscription to be mailed to:

Merrill Memorial Library
Main Street
Yarmouth, Maine

I talked with the librarian about R&M and asked him if it wouldn't be nice for it to be in the library and he agreed. When the subscription expires, send the renewal notice to me instead of the library for I intend this as a gift from me.—I can't think of a better place for people to get acquainted with it!

Roy M. Fitts
39 E. Elm St.
Yarmouth, Me.

Howard's Handbook will soon be out of Print

J. Harry Howard, 504 Crescent Ave., Greenville, S.C., the dean of American Amateur Lapidaries who revolutionized gem cutting when his first *book* was issued in 1931—"The Working of Semi-Precious Stones"—informs us that his "Revised Lapidary Handbook" will soon be out of print. The reasons for not reprinting it are two, he informs us.

"First—The precarious state of my health prevents me from taking on any work. Second—Sales are down to where it would be doubtful if another printing would be profitable.

"Most dealers stress the newer books. They are usually much higher priced and give the dealer more profit per sale, and the prospective buyer probably thinks that the newer the book, the more valuable it will be to him (embracing more modern techniques)."

R&M has sold thousands of Mr. Howard's books—they were tremendously popular—and so it is with sincere regret that their sale will soon be discontinued. To Mr. Howard, all amateur gem cutters are deeply indebted for making available to them the fascinating secrets of gem cutting and polishing.

Rules Governing The Awarding of The George and Corrine Barclay Trophies

1. The Barclay Trophies shall be awarded annually by the American Federation of Mineralogical Societies at its National Gem and Mineral Show. These Trophies shall be awarded to the display judged best-in-show (Adults) and best-in-show (Juniors) in the overall classification of Fossils.

2. All competitive exhibitors must be members in good standing of a society which is a member of a Regional Federation affiliated with the American Federation of Mineralogical Societies.

3. To be eligible to compete for the Barclay Trophies, the Exhibitor must have received a first place award for a Fossil display at one of the last three of his own Regional Federations Annual Shows.

4. There shall be two trophies offered each year; one for adults and one for Juniors. Juniors are designated as those persons who are not under 8 years old nor have reached their 17th birthday as of the opening day of the National Show. With this one exception, these Rules apply equally to Adults and Juniors.

5. Each specimen displayed must be clearly and properly labeled as to identity and location.

6. Each competitor must furnish to the Show management a signed statement as to his membership and standing in his local society and certify:

(1) that all the material to be displayed is his own personal property.

(2) that he is eligible under the requirements of Rule #3 above.

George C. Barclay (left) and L. J. Pursifull (President of the Eastern Federation and Lapidary Societies) holding the adult and junior Barclay Trophies—Aug. 6, 1958

(3) that he and the material to be displayed are fully qualified and eligible to compete in accordance with these Rules.

7. The specimens entered need not be the same as those entered in winning the Regional Federation first place award but all specimens entered must be the personal property of the exhibitor.

8. The maximum display area shall not exceed 18 square feet except by special arrangement with the host society and then only to accommodate and exhibit with especially large specimens rather than to merely increase the display area for ordinary size specimens.

9. No person who has been awarded either of the Barclay Trophies may enter into competition for the same Trophy again. Nor may the same material in a winning display be eligible to be entered in any subsequent display for the same trophy.

10. Competitive displays shall be judged on the following percentages:

Quality	30%
Variety	20%
Rarity	20%
Identification	10%
Labeling	10%
Showmanship	10%

11. The Show management shall provide a panel of competent judges for the judging of all entries. This panel may be the team provided for in the Geological Section of the Show or it may be a special team, at the option of the host society.

12. The name of the winner shall be engraved on the Trophy won and he may retain the Trophy for one year. However, he must return it to the next American Federation Convention Show Committee to arrive well in advance of the opening date. A replica will be awarded to each winner which will be his to keep.

13. These rules are subject to the interpretation of the American Federation of Mineralogical Societies Committee on National Awards and may be altered by this Committee to make them conform to changing conditions and requirements; however, the purpose of these awards—to recognize the most outstanding exhibits in the overall classification of Fossils—may not be changed.

Note: These trophies have been donated by the Gem and Mineral Society of the Virginia Peninsula to be awarded by the American Federation of Mineralogical Societies at its National Gem and Mineral Show each year beginning in 1959. Any further information may be obtained by writing to:

Lt. Col. Bertram H. Johnson, President
The Gem & Mineral Society of the Virginia Peninsula
7 Curtis Drive
Lee Hall, Virginia

or

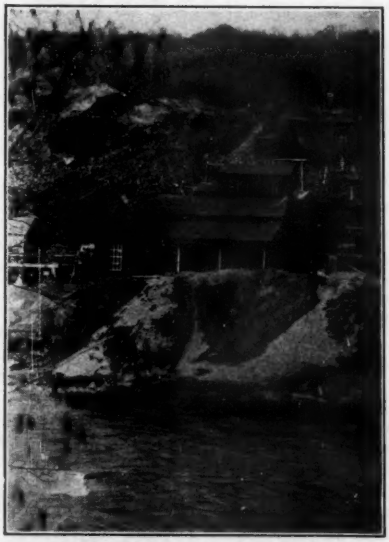
Mr. Roy E. Clark, Chairman
Barclay Trophy Committee
930 - 19th Street
Newport News, Virginia

Minerals to be his life's work!

Editor R&M:

I like R&M very well. It is a real help to me since I am just beginning in this hobby. Minerals are so fascinating that I hope to make them my life's work.

Ronnie Krupp (age 16)
RFD 4
Fostoria, Ohio



An arsenopyrite mine in Cornwall, England Arsenopyrite, a pale whitish metallic mineral, is the chief ore of arsenic.

INFORMATION WANTED BY READERS

Mother-of-Pearl wanted!

I am writing you because a young friend of mine has inherited a marvellous bit of workmanship—a checkerboard which appears to be made entirely of inlaid mother-of-pearl. The reason for writing is that several of the bits of inlaid pearl material have been lost out and I am wondering if you can make any suggestions, or refer me to any firm which could repair this for him. Personally, I think if I could secure the material we could probably repair it ourselves but I have no idea where this may be secured.

Ray S. Wycoff, M.D.
106 W. 7th St.
Lexington, Nebr.

We do hope one of our readers may be able to supply the material wanted.

Wants information on rose quartz crystals

I was wondering if you could tell me why there aren't very many rose quartz crystals around? I have done a considerable amount of research on rose quartz crystals and have come up with almost nothing.

Rick Carlson
2937 Elliott Ave.
Willow Grove, Pa.

One of our quartz crystal collectors should be able to answer this.

What is a Petoskey Stone?

I have a question which I am hoping you can answer for me. Have you seen and examined what is known as a petoskey stone found most frequently along beaches in Michigan? If so what would the mineral or crystal content be called? I presume they would be classed along with agates.

Mrs. E. F. Fox
342 Franklin Ave.
River Forest, Ill.

Petoskey stone (also called Petoskey agate) is a fossil coral of the genus Prysmatophyllum (Devonian) that takes a beautiful polish. It is a soft stone, being calcium carbonate, and its popularity is due to its beautiful structure which is much intensified when polished. Because it was first found around Petoskey (Emmet Co.) Mich., is how the name Petoskey Stone originated.

Petoskey stones, in the form of curios, mementos, and souvenirs, are widely sold to tourists in and around Petoskey.

See "Petoskey Stones", by Philip R. Schnabel, R&M, May 1948, pp. 410-411. Unfortunately this issue is out of print but copies may be found in many public libraries.

Are uranium ores dangerous to handle?

Is the handling of my uranium ores dangerous? If so, what precautions should I take? I would appreciate an answer.

I am very happy with R&M and hope to continue my subscription permanently since I hope to become a geologist.

Patrick Offutt
Wight Ave.
Cockeysville, Md.

No, your uranium ores are not dangerous to handle. They are just like any other minerals, so you can handle them in perfect safety.

Abbreviations used in mineral articles

A number of readers have written in desiring to know what the abbreviations mean which are frequently seen in R&M. Here are some:

xl—crystal
xls—crystals
xled—crystallized
xline—crystalline
fl—fluoresces
ph—phosphoresces
pseudo—pseudomorph
sp. gr.—specific gravity
h—hardness
var.—variety

Gold in his garden

Butcher Mr. Neville Alexander struck gold in his garden in Abbotsley-avenue, Mossley Hill, Liverpool, England.

"It can't be," he said when he saw the flakes glitter. But it was. An assay proved the flakes were real gold.

Now 49-year-old Mr. Alexander has taken to pan and water like a real prospector.—Daily Express, Aug 27, 1958

(Item sent in by Sandy Ramsay, 1015 Aikenhead Road, Kings Park, Glasgow S4, Scotland.)

OBITUARY NOTICES

Frank Hawley Ward

Head of Ward's Natural Science Est., Inc.

Frank Hawley Ward, 81, chairman of the board of Ward's Natural Science Establishment, Rochester, N. Y., prominent paleontologist and a member of a pioneer Rochester family, died today (June 16, 1958) in his home after a long illness.

Mr. Ward had been associated with the world-famous natural science establishment since a few years after his graduation from Princeton in 1896. The establishment was founded by his cousin, the late Prof. Henry A. Ward, in 1862. It has been located at 3000 Ridge Rd. E., Irondequoit, since 1942.

Mr. Ward's widow, Clara Louise Werner Ward, has long been one of the city's most active women in civic ventures.

Mr. Ward was born in Grove place in a home built shortly after his grandfather's arrival here in 1807. The Central YMCA now stands on this site. The patriarchal mansion was the first of a number of residences that were built in Grove place by the sons and sons-in-law of Mr. Ward's grandfather, Dr. Levi A. Ward.

One of these was the house at 18 Grove Pl. where the F. Hawley Wards have lived for many years and which was a landmark in the horse-and-carriage days.

Mr. Ward attended St. Paul's Episcopal School, Concord, N. H., and Princeton University where he also did graduate work in electricity.

Mr. Ward once admitted that farthest from his mind after graduation from Princeton was the running of a natural science supply business such as Ward's, of which his father, Frank A. Ward, was president.

After further schooling, he went to work in a General Electric Co. testing laboratory in Schenectady, about 1900. A year later he went to Canada to work as a supervisor of electrical installations for two years. Then followed a year in Georgia working for a power company.

He returned to Rochester in 1905 when his father summoned him to assist at the natural science establishment. But before the year was out Mr. Ward was named state zoologist, a post which he held in Albany until 1910.

Back in Rochester, he worked again for his father. Mr. Ward's brother, Edward, had been trained to take his father's place but in 1913 was killed in a railway accident. As a result, Mr. Ward took over the departments of ornithology and taxidermy.

When another brother, George, was killed in an auto accident in 1927, a few months after his father's death, F. Hawley Ward became director of the establishment. At Mr. Ward's suggestion, the University of Rochester took over the business in 1928 and ran it as a non-profit institution until 1940, when it was sold back to the Ward family.

In 1931 Mr. Ward turned over the directorship of the natural science establishment to Dr. Dean L. Gamble and he became chairman of the board.

He was a member of a number of scientific organizations and of the Country Club of Rochester and the Genesee Valley Club.

Mr. Ward married Ruth Milne of Albany, daughter of the author of the once-famous Milne arithmetic books. They had one daughter, Elizabeth, now Mrs. John R. Adams of Canandaigua.

Mrs. Ward died Nov. 14, 1914.

Mr. Ward in 1922 married the present Mrs. Ward, who is a sister of Mrs. Frank Gannett and Mrs. Douglas C. Townson.

They had two sons, Hawley W. Ward of Rochester and Addison Ward of New Haven, Conn., who survived him. He is survived by a brother, Dudley Ward of Canandaigua, and three sisters, Mrs. Harold D. Bentley of Rochester, Mrs. William Woolfolk of Detroit and Mrs. Henry Crittenden of Milford, Conn., and six grandchildren.

—Rochester Times-Union, June 16, 1958

Samuel James Neal

Samuel James Neal, sixty-five, 12 New St., Mount Joy, Penn., died at 3 p.m. Tues., April 14, 1958, at St. Joseph's Hospital where he was admitted Fri. April 11.

He was born in Excelsior Springs, Mo., son of the late Clinton and Rhoda Clevenser Neal. He was a resident of Mount Joy for 41 years, and was an employee at the Olmsted Air Force Base, Middletown, retiring in May 1957. He was a member of Trinity Evangelical Lutheran Church, Mount Joy, the Men's Bible Class of the Sunday School, and a former member of the Church Council. During World War I he served in the U.S. Army.

His only survivor is his wife, the former Katherine Zerphey.

Mr. Neal was a member for many years of the Rocks and Minerals Association.

Club and Society Notes

Attention Secretaries—Please submit neat copies. Give dates and places of meetings. Check names for correct spelling.

East

Mineralogical Society of Pennsylvania

The Mineralogical Society of Pennsylvania held a field trip to the Bethlehem Limestone Quarry (a subsidiary of Bethlehem Steel Co.) at Bridgeport, Pa., on July 13, 1958. More than 150 members and guests braved the fiery heat of the day to dig for minerals.

The quarry covers 38 acres and is now 305 feet deep. The accompanying photograph, snapped by Harold Evans, indicates the size of the site. Cracks and vugs in the dolomitic limestone are lined with quartz crystals, some with calcite and dolomite rhomb. Some of the crystals are coated with yellow or red iron oxide. A very few specimens of the crystallized malachite were found, and sphalerite was also reported.

The Board of Directors of the MSP met at the home of Charles Belz, President, on July 20, to further the plans for the 1958 Earth Science and Gem Show to be held October 25 and 26 in the Armory at Doylestown, Pa.

On Sunday, September 14th, 1958, 128 members and guests of the Mineralogical Society of Pennsylvania were the guests of Bethlehem Steel Cornwall Corp. Iron Mines, Cornwall, Pa.

We assembled at the main office parking area at one o'clock, and were welcomed by Mr. George Perhack, Head Mining Engineer of Bethlehem Steel Co., and Mr. William Maurer.

After a very cordial welcome, Mr. Perhack announced we would be guided first to the #4 Shaft, where their stock piles of nearly pure magnetite could be explored. Among the minerals found here were micro crystals of magnetite, platy magnetite, and

Mineralogical Society of Pennsylvania field trip to Bethlehem Limestone Quarry, Bridgeport, Pa., July 13, 1958. Photo by Harold Evans

Mineralogical Society of Pennsylvania field trip to Bethlehem Steel Cornwall Corp. iron mines, Cornwall, Pa., Sept. 14, 1958. Photo by Harold Evans

hematite—a few specimens of lodestone and covellite.

At 2:50 P.M. we went to the main dumps, on the hill overlooking the open pit. The view from this point is of great scenic interest. The cameras were clicking in all directions. The reported minerals found by Fred Hart, green garnet and prehnite; Bob Kieronski, hornblende in feldspar and pyrite; William Sherpinsky, erythrite; David Monteith, a specimen showing about a dozen garnets ranging in size from ¼" to ¾"; Charles Shoff and his nephew John, magnetite and chalcopyrite; Pauline Kintz, a very attractive specimen of byssolite; Dr. Carl Rilling, an outstanding specimen of apophyllite; Paul Seel, specular hematite and garnet; the three Moretons—John, Marion and Marilyn, byssolite, hematite, sphalerite crystals, actinolite and chrysocolla; Joan Matter, a nice specimen of prehnite.

We were all very pleased to see Gene Belz back on the field trip again.

Mr. and Mrs. Ammon Schwartzbach members of our Society, also Treasurer and Secretary of the "Central Pennsylvania Gem and Mineral Club", brought as their guest, the Vice-President of that Society, Mr. Ernest Bostelman. Another guest was Mr. William A. Brown from the Miami Mineral and Gem Society.

Harold Evans brought two cartons of massive and a few crystal specimens of fluorite from "Cave in Rock" Illinois, for distribution. Needless to say they disappeared in very short time.

President Charles Belz called for a meeting at the close of the collecting time. He reported the "Case Building Project" was underway. There is great need of "do-it-yourself" volunteers. Handymen or anyone who can use a hammer, paint brush, or knows something about wiring please report to Charles Belz at "Quarry Farm, Lansdale, Pa."

A group photo was made by Harold Evans at the end of the meeting.

Bernard H. Kress, Publicity
4018 Kottler Drive
Lafayette Hill, Penn.

Franklin Mineralogical Association

The Secretary-Treasurer wishes to report the following:

The material for inclusion in our official publication, the *Franklin Mineral Digest*, is completed and was forwarded to the printers in September. It is hoped that the printing will be completed by the end of November and copies will automatically be mailed promptly to all members of the FMA.

The table of contents for this, our first Digest, consists of the following:

1. The Minerals of Franklin and Sterling Hill, Sussex County, New Jersey, reprinted from the paper by Charles Palache, U.S. Geological Survey Professional paper #180, dated 1935. As this is the first from the Palache report, much space is given to the introductory material contained in the report. Two complete listings of all the minerals known at that time from the district are included. The history of mining, the exploitation and utilization of the ores, the geology of the deposits, plus the wealth of descriptive material on the various types of mineral associations, is included. Also receiving attention is the various hypotheses presented in the Palache report. The Native Elements are included but the bibliography, for the moment, has been omitted.

2. The Post-Palache Franklin and Sterling Hill Minerals, by Sunny Cook, will discuss and describe six minerals or varieties, amongst which are ankerite and two varieties of andradite. This is the first of a series dealing with descriptions of minerals discovered since publication of the 1935 Palache report.

3. Contributions to Franklin Mineralogy. The Fluorescent Minerals by Cook, Fisher and others. About thirty minerals are discussed by four writers. Tourmaline and mica are for the first time adequately described as to fluorescent properties. As well as those which have been described in previous publications, such minerals as bustamite, chondrodite, larsenite, and others have received considerable attention in this report.

4. The Buckwheat and Parker Dump Minerals, Franklin, New Jersey. This is the first of a series designed to acquaint the amateur mineral collector with the minerals which are found at these two dump areas. Particular attention was given to the various mineral associations of the minerals under discussion, in which are included quartz, bornite, pyrite, malachite and a number of others.

5. Preamble to the Constitution of the Franklin Mineralogical Association. This briefly lists the objectives and principles of the Franklin Mineralogical Association.

A number of members have still not availed themselves of the privileges of the circulating library which has proven of interest and help to a large segment of our membership. Included in the list of articles currently available and which are most popular are the following titles: "Zinc Deposits Near Franklin, N. J."; "The Franklinite Case"; "A Help In Working With Franklin Minerals"; "A New Variety of Willemite From The Sterling Mine"; "Description of Franklin Furnace Quadrangle"; parts I & II; "Collecting Fluorescent Minerals At Franklin, N. J."; "Franklin-Sterling Operations"; and others.

Membership for one year in the FMA is two dollars.

Gerald Navratil, Sect-Treasurer,
Box 70, RFD 2
Middleburgh, N. Y.

Newark Mineralogical Society, Newark, N. J.

The annuual dinner of the Newark Society was held on Dec. 1, 1957 at Ye Olde Mushroom Farm, West Orange. There was a sale of Prospect Park minerals and after the dinner the 340th meeting was held at which time the new officers were installed as follows:

Mr. E. J. Talamini.....President
Mr. Max Bareiss.....Vice-president
Mr. William H. Clinton.....Secretary
Mr. Sam Brown.....Treasurer
Mr. Louis D'Alonzo.....Display case chairman

In January there was an interesting display of copper minerals and we enjoyed the sound film of "The Petrified River" from the U.S. Geological Survey.

Also during this month Mr. and Mrs. R. W. Burnham entertained many members of the Society at their home. They showed very beautiful and unusual colored slides of their trip around the world. The slides and the exhibit of their mineral specimens and objects d'art were enjoyed by all.

The February display case proved interesting with a collection of Pseudomorphs and Mr. Oscar Krautheim spoke on "Three Seasons in Nova Scotia." He also displayed some specimens from Nova Scotia.

In March there was an interesting group of iron minerals displayed by Mr. Carl Schroeder. One of our own members Dr. A. J. Delario presented an interesting and informative lecture on "Jade, the Mineral and Men's Use of It thru the Ages." Dr. Delario also had an exhibit of jade objects.

The display case in April was very interesting with a display of the Quartz family minerals. Mr. Louis Reamer, a charter member of our club, gave an illustrated lecture on "Fluorescene in the Arts." He also displayed glassware, beads, artificial flowers, costumes, and lace tablecloths that he had impregnated with a fluorescent substance.

Our May meeting was devoted to a discussion of the North Carolina area. Mr. M. F. Kidzus, one of our members, showed slides and spoke on "Mineral Collecting in North Carolina". An exhibit of North Carolina minerals was also displayed.

The results of the Summit Quarry Field Trip were also discussed and it appeared that our secretary Bill Clinton had the best find of that trip—a rather large specimen—a stilbite—cauliflower formation.

In June we discussed the possibilities for summer field trips and there was an excellent display of Geodes. Finally we had our "mystery" speaker who proved to be one of our most prominent society members—Mr. Peter Zodac. He gave an interesting and humorous talk on his early experiences in the mineral collecting field. He also stressed some of the basic rules to follow when collecting:

a. Always get permission to go on properties.
b. When you have been given permission to visit a quarry follow the Superintendent's directions.

So the summer began, with some of our members looking forward to a trip to the convention in North Carolina and others traveling to more distant places.

Mary C. Freeman—Publicity Chairman
5 Woodrow Place
West Caldwell, N. J.

Stamford Museum Mineralogical Society (Connecticut)

This club of 60 is made up of mineral lovers of a wide range of ages. Most of them are intensely interested in rocks and minerals, and we are all very good friends. The club is an excellent social unit.

Several of us have been to Maine and New Hampshire mineral hunting. Last year Mr. and Mrs. Ernest Hewitt visited every mine and quarry possible in an extensive Rocky Mountain trip. This year they are going far north in Canada with some mines their principal objective.

The club makes frequent field-trips here in Connecticut, and finds surprisingly good specimens in quarries that have been raked over by hundreds of rockhounds. Lately uraninite crystals and transparent torbernite crystals were found at the Branchville quarry.

Many of us are familiar with the Tilly Foster mine near Brewster, N. Y., and the Strickland quarry in Portland, Conn. We go to the mine in Franklin, N. J., and bring home fluorescents in abundance and we learn what we can of the history of the locations where we hunt.

Our president, Mr. James Tullman, and our vice president, Mr. Alan Kattelle, have not been interested in minerals many years, but they have made wonderful progress.

Mrs. Marion Cole, our secretary, has more than equalled the success of other secretaries in keeping very complete records of our meetings. With the help of her husband, who is a lawyer, she has included in her record many items of information that most of us would forget if we did not hear them given a second time.

Our treasurer, Mrs. Don Lederer, and her husband range from Maine to Virginia. They take their two children with them, and in two years they have visited more mines than most of us will ever visit.

Perhaps one-third of our members families have their own lapidary outfits and do good work.

Such zeal as our members have is rather wonderful, but we know that everywhere the fascination of minerals is tremendous.

Ralph H. Mix
102 Knickerbocker Avenue
Springdale, Connecticut

Connecticut Valley Mineral Club

During the summer of 1958 field trips were held at the following localties: June 8, Strickland Quarry, Collins Hill, Portland, Conn. where the dumps yielded a few good spodumene crystals, one fine terminated beryl crystal and the usual pegmatite minerals; July 13, Chester Emery Mine, Chester, Mass., where diaspore, tourmaline, a little malachite, epidote and fairly plentiful margarite were found; August 10, Gassetts, Vermont for gold panning where most members recovered small flakes and also three good-sized nuggets were discovered; Sept. 7, Fonda, New York where digging produced a number of small, clear doubly-terminated quartz crystals as well as many very large crystals.

Mrs. Mary S. Shaub, Secretary
159 Elm Street
Northampton, Mass.

South

Charlotte Rock and Mineral Club

Last summer three people including myself had a meeting and as a result the Charlotte Rock and Mineral Club was organized. We now have 36 members. We meet

monthly at the Children Nature Museum and try to have one field trip a month.

J. C. Krimminger
1506 Mimosa Ave.
Charlotte 5, N. C.

The Tri-State Rockhounders

The entire membership of our club at our last regular meeting have voted unanimously to extend our thanks to the Southern Appalachian Mineral Society for the wonderful and untiring effort they all gave to make The Eastern Federation Show at Asheville, N. C., the great success that it turned out to be. We all feel that this group should know of our great appreciation.

AND to Mr. Zodac, Editor of R&M, we extend our hearty thanks and appreciation for his wonderful contribution by giving us that valued North Carolina Edition, (July-Aug. 1958) and by honoring us with his presence during the show.

Our club also wishes to express their desire that a similar show be worked up as an annual event in our area.

Fred O. Scroggs, Cor. Secy.
The Tri-State Rockhounders
Brasstown, N. C.

Mid-West

Green Lane Jr. Rock and Mineral Club

The Green Lane Jr. Rock and Mineral Club was organized last April composed of 15 children in the 12-14 age bracket. The purpose of the club is to study earth science, as well as learn to identify common rocks and minerals, to display them, as well as trade with people from various parts of the country. We hope later to learn to use the Moh test, geiger counter, and mineral light. We meet the last Saturday afternoon of each month at the club room, which was the former recreation room at the home of Diane Handy, 4391 Comfort Rd., Tecumseh, Mich. The officers are:

President: Barry Finnegan
Vice-President: Carole Bird
Secretary: Cathy Brown
Treasurer: Glenn Slick
Program leader: Arlene Handy
Advisor: Miss Thelma Younglove

St. Louis Mineral and Gem Society

The first fall meeting of the St. Louis Mineral and Gem Society got off to a good start with many plans being made for the coming year.

On the 14th of September we sponsored a Field Trip to Pere Marquette State Park in Illinois, where we looked for Fresh Water Pearls.

On the 20th of September we held our annual SOS (Swap or Sell) Day, at the home of our president, Mr. Busch. This year, for the benefit of those attending, we had a saw and tumbler set up to show how to cut and polish a stone. Since all our activities are open to the public, we might get a few new recruits for our club when people see what a fascinating hobby it is.

For the 18th and 19th of October we have an overnight caravan planned to the Lead District near Rolla, Missouri to the Moselle Mine. We hope to get many good specimens of Hematite, Limonite, Copiapite, Quartz, Pyrite, Marcasite, Ripple-Marked Sandstone and if we're lucky, maybe some Goethite.

Plans are under way to adopt the Washington County Agate, sometimes called Potosi Agate, for our official Club Stone. Also planned, is a class for our Student and Junior Members in Mineralogy and Geology as well as related subjects. Later on we hope to be able to include those adults in our club that would like to increase their knowledge of these subjects.

Our October meeting has been designated by Mr. Busch as, "Bring A Friend Night." That will be the 3rd of October at 7:30 P.M., Wilson Hall Geology Building, Washington University. If any of your readers are in the area, and would like to take part in any of our activities, they should contact our Rock Lore Editor, Mrs. Henry Ellersick, 5449 Robert Avenue, who will give them complete information.

Jeanette Strope, Publicity
3237 Lafayette Ave.
St. Louis 4, Mo.

Wyoming

Riverton Mineral and Gem Society

The Wyoming Mineral and Gem Society held its annual meeting in Sheridan, Wyoming, on August 3, 1958, and at that time, the Riverton Mineral and Gem Society was chosen as the Host Society for the 1959 Show and Convention. The slate of officers selected are as follows:

President: Norbert Ribble, Lander, Wyo.
Vice-President: Cliff Hopkins, Riverton, Wyo.

Treasurer: Mrs. Al Perkins

Corresponding Secretary: Mrs. Adam Wensky

Assistant Secretary: Mrs. Earnest Hubbard

Therefore when we held our first regular meeting of the fall season on September 7th, it was natural that the topic foremost on all our minds was the fact that we were to have this big event. We have begun to line things up immediately, and have chosen the dates of our meeting next year as *June 19, 20, and 21, 1959*. We chose the Fremont County Fair Building, Riverton, Wyoming as the place where we would hold our Show, and chose some of our committees also at this time. As the plans progress, more information will be forthcoming. We do want to get our dates out early so that those who must put in for their vacation dates quite a bit ahead of time, could include our show on their itinerary.

Following our business meeting, Mrs. Adam Wensky gave a talk on some of the ways in which fossilization occurs, and also described some of the fossil finds which have been made. The "copper" man, the woolly mammoths, the sabre tooth tigers and other animals trapped in the La Brea tar pits, the large rhino herd found in Nebraska which evidently was the victim of thirst and quicksand, the Java man, the Peking man which has disappeared so completely, and others were described and the type of fossilization which they typified were discussed.

Margaret A. Wensky
Secretary-Treasurer,
1017 E. Loebe,
Riverton, Wyo.

Collector's Corner

For the special benefit of collectors who may be living in areas far removed from other collectors we have opened this feature. In this corner, a collector may have his name and address listed for the purpose that other collectors may write him in the hope that through correspondence, exchange of ideas and specimens, new friendships may be formed. Listings are free.

Gary L. Powers, 1126 E. 3rd Ave.,
Mesa, Ariz.

Mrs. John Branch, 3820 Ridge Ave.,
Tampa 3, Fla.

George & Velma Wyatt, 2002-57th,
Tampa 5, Fla.

Maurice Lamb,
Niota, Ill.

Paul L. Doggett, 950–65th St.,
Des Moines 16, Iowa

Malcolm Arnett, RFD 1, Box 253,
Corydon, Ky.

Nelson Garner, RR 2,
Sharpsburg, Ky.

Timothy K. Beck, 9 Arthur Rd.,
Andover, Mass.

Leslie R. Clift (11yrs), N. Main St.,
Raynham Center, Mass.

Larry Smith (12 yrs.), 2051 Clyde Park
S.W., Grand Rapids, Mich.

David Klinshaw (11 yrs.),
153 Oakland Ave., Audubon 6, N.J.

Mrs. Dorotea M. Rowe, RD 1,
Nassau, N.Y.

Robert E. Bedford,
14 E. Main St., Johnstown, N.Y.

Mrs. Walter Dundorf, Jr., 445 Valley St.,
Marysville, Pa.

Thomas Petro (16 yrs.), 905 Meade St.,
Reading, Pa.

Edward Helpenstell, 1429 Sandpiper Dr.,
Houston 36, Texas

T. Nichols, Rt. 4,
Bowie, Texas

V. Sabin, 723 Steves,
San Antonio 10, Texas

Ben Marshall, P.O. Box 926,
Amelia, Va.

Bob Brock, 315 E. Commercial St.,
Appleton, Wisc.

Deo Hugo, Ookiep Hotel, Ookiep, Namaqualand, C.P., South Africa

WOMEN'S CORNER OF R&M

Conducted by Winnie Bourne
c/o Rocks and Minerals
Box 29, Peekskill, N. Y.

MERRY CHRISTMAS TO ALL AND A HAPPY NEW YEAR — Winnie

Dear Winnie:

The last time I wrote to ROCKS AND MINERALS, my husband and I were in Utah enjoying the wonderful rock hunting there. Since last November, however, we have been in Pirmasens, Germany, serving the first of three years with the Armed Forces.

There are three areas in particular in Germany noted the world over for excellent fossils, and we have visited two of these so far. The Devonian slates in Bundenbach yield complete crinoids, starfish, trilobites, and a variety of strange animal life. To remove the matrix that clings to the surface of the pyritized specimen, one must scrub with a tiny metal bristled brush until the pyrite is clearly exposed. Only the marvelous quality of the fossil can make such tedious work worthwhile, but we have added several valuable specimens to our collection in this fashion. We met a gentleman who worked in the slate mines quarrying and shaping the slates into roofing shingles, and who sold us several fine specimens at small cost, and also took us to the dump yielding the most fossils. There are beautiful specimens from this location displayed in the Frankfort Natural History Museum.

Also shown are fantastic fossil remains of fish and reptiles from the Jurassic shales at Holzmaden. I was frankly overwhelmed at the huge, well preserved ichthyosaurs, and crinoids several yards in height. We visited the Holzmaden quarries, and found belemnites eight inches long, and large flat ammonites preserved as though someone had painted the details of the shell on the dark gray slabs in shining pyrite. The rarest specimen was a tangle of carbonized worms.

The third area we have not yet seen, but plan a trip there soon. It is at Solnhofen where the limestones yield an abundance of Jurassic fossils.

The readers might be interested to know we have a piece of Messelite from the world's only known source, Messel, Germany. We have had the privilege of meeting Dr. and Mrs. Werner Lieber who live in Heidelberg, and who subscribe to ROCKS AND MINERALS. Dr. Lieber is the editor of the AUFSCHLUSS, which is Germany's excellent fossil and mineral publication. It was with Dr. Lieber's help we had such success at Bundenbach, and, on the whole, we have found the German people very considerate and willing to assist us on our field trips, for which we are grateful.

Dr. Lieber asked us to join a field trip to Wiesloch where we found several good specimens of Hutchinsonite, Jordanite, Schalenblende and Barite, which takes a nice polish.

We are trying to acquire samples from every good collecting area here before we return to the States, and we are keeping maps and notes in case any reader expects to come to Germany and desires such aid. We will keep you posted from time to time on our adventures here.

Sincerely,
Capt. and Mrs. Rodney A. Stone
225 Station Hospital
APO 189
New York, New York

Dear Winnie

Possibly you would enjoy a letter from a "rock-hound" who sits in lonely solitude while the other members of "The Stamford Museum Mineralogical Society" of Stamford, Conn., trudge off to adventure.

When a Field Trip is scheduled I pack a lunch, books and sewing and plan for a day parked along the road.

One day last October the group started for the Old Tungsten Mine in Trumbull, Conn. As this is now a town park we received gracious permission from the Chief of Police to go there and as a special privilege we could stay into the evening.

The afternoon was uneventful for me, the others found much to exclaim over.

About six o'clock fourteen of us—such a "motley crew"—picturesquely dressed in our oldest clothes, the head-gear of the men especially eye catching and the feet—every style of foot-wear represented except "waders."

Off to a hilarious supper at a small diner and then back to the Mine for the evening.

Once again I watched the group plod off up the slope and disappear.

I may not collect specimens but I do collect memories and here I found one that I often "take out, dust off and enjoy." I watched, that evening, the huge Hunter's Moon rising over the hill, first a gleam of light then showing more and more until it burst into view in all its orange splendor. Across its gorgeous face branches and twigs made a lacy network.

Soon far up on the mine slope I saw a gleam of light, then another glimmer and soon there was a festoon of lights, dancing along as each of the members picked his way down the rocky slope guided by his flashlight. It was "The Dance of the Fireflies", I could almost hear the music, misty and far away.

While I was acquiring memories the rest had been having a breath-taking experience. The men had carried with them their short wave ultraviolet lights. When these were focused upon the ground the scheelite burst into bloom. Those lucky mineralogists walked through beds of forget-me-nots, the ground was covered with a heavenly blue, which will never wither and fade away.

Greetings to you from The Stamford Museum Mineralogical Society.

Mrs. Chester S. Wendell
34 Middlesex Road
Darien, Conn.

Dear Winnie:

Would like very much for you to give us information as to where we can procure a particular type of gem stone from California named the flower stone.

Would appreciate your help in this matter.

Mrs. Robert E. Foote
484 Grove St.,
Woonsocket, R. I.

Ans. This stone is new to me, Mrs. Foote, but according to our references flower stone is a variety of agate, perhaps a moss agate in which the "moss" is arranged in a flower-like design. Try one of our California dealers for a specimen. R&B Art-Craft Co., Burminco, Minerals Unlimited, Grieger's, San Francisco Gem Supply, San Fernando Valley Gem Co., Valley Art Shoppe, Hoover's, Filer's, Plummer's, Shirey, Bouton's, Treasure Crafts—are some dealers who may have California flower stone in stock.

Beautiful Mineral Photos in Color

Reo N. Pickens, Jr., 610 N. Martin, Waukegan, Ill., recently sent us two more post card photos of beautiful xled minerals—in color. One card was of a group of yellowish-brown New Jersey stilbites, the other of a group of reddish wulfenites from Mexico—both very, very nice.

Mr. Pickens is a Commercial Photographer whose specialty is photos of minerals in color. Judging by the samples sent us, Mr. Pickens produces the finest mineral post cards in color we ever saw from America.

These mineral post cards in color are for sale—30 for $1.00.

PUBLICATIONS RECENTLY RECEIVED

Pearl—Popular Gemology (2nd Edition).

By Richard M. Pearl, Associate Professor of Geology, Colorado College, 316 pp. Published by Sage Books (Alan Swallow, Publisher), 2679 S. York St., Denver 10, Colo. .....Price $4.00

Popular Gemology presents in layman's language the most recent accurate knowledge of gems. The fascinating treatment ranges from the shadowy beginnings of gemology in antiquity to the latest fluorescent equipment for illumination of luminescent gems. Whether you work with precious stones for a livelihood or collect or cut them as a hobby, you will find *Popular Gemology* full of interesting and valuable information.

Professor Pearl discusses the scientific and industrial uses of gems and gives current information concerning localities and production as well as recent developments in commerce. He uses the system of classification introduced in the seventh edition of Dana's *System of Mineralogy*. Also the gems are classified according to their style of cutting. This system is found to be a more scientific division than the usual alphabetical listing or arrangement by personal valuation. Emphasis is placed on the mineral family, series, and species as the natural units.

Some of the special features of this standard work are the following: separate chapters on fluorescence and on quartz and other silica gems; careful attention to nomenclature and the emphasis of important scientific words by italics; and more than 100 photographs and drawings carefully chosen to illustrate the discussion.

Schooner—Mineralogy of the Portland—East Hampton—Middletown—Haddam area in Connecticut

By Richard Schooner—41 pp. 1 generalized geologic map of the area. Published by the author (P.O. Box 215, East Hampton, Conn.), with the cooperation of Ralph Lieser of Pappy's Beryl Shop, East Hampton, Conn., and Howard Pate of Fluorescent House, Branford, Conn. ....Price $2.00

Some of the most popular mineral localities in Connecticut, such as the Strickland and Gillette pegmatite quarries, are fully covered in this most interesting publication. These localities and others are famous for their large assemblage of minerals (some good, some very good, others rare, etc.). Every collector who is in anyways interested in Connecticut minerals should have a copy of Schooner's *Mineralogy* which can be purchased direct from the author or from Pappy's Beryl Shop or the Fluorescent House.

Mr. Schooner is one of Connecticut's most noted mineral collectors and an authority on the state's minerals.

Dibner—Agricola on Metals.

By Bern Dibner, Director of Burndy Library, Norwalk, Conn. 128 pp., 72 illus. Published by Burndy Library, Norwalk, Conn. .....Price $2.50

One of the most significant single books in the history of technology was made accessible to the English-speaking world by a translation made by two scholars who later became president and first lady of the United States. The historic work was "De Re Metallica," by Georgius Agricola, and its translators were Herbert and Lou Henry Hoover.

Agricola's aim was to write a textbook on mining and metallurgical engineering for his contemporaries of the 1500s. What he left posterity was an encyclopedic, richly illustrated record of a highly developed industrial culture that flourished a good 200 years ahead of the beginnings of what we usually call "the industrial revolution."

"Agricola on Metals" is a distillation of "De Re Metallica" for the reader interested primarily in its historical significance. This attractive little volume reproduces over 70 selected illustrations from an original edition in the Burndy Library. Besides underlining the greatness of Agricola's own contributions, the author of the present offering, Bern Dibner, pays tribute to the remarkable scholarship of its translators.

Conley—Mineral Localities of North Carolina (Information circular 16)

By James F. Conley, 83 pp. 10 pls. Published by North Carolina Dept. of Conservation and Development, Raleigh, N. C. .....Price 50¢

Because of the recent interest in mineral collecting and gem cutting which has developed in the state, this publication has been prepared as a guide to the mineral localities of North Carolina and is designed to aid collectors and other interested persons in the minerals of the state. Some of the localities are famous old mines which have been closed for years, some are present day mines, while others are mineral collecting localities only. Many of the gold, feldspar, and mica deposits have been omitted purposely because most of them are well covered by the literature. The few of these deposits which are mentioned, are in reference to other minerals which occur in them.

The localities are presented in annotated form, by counties, with a brief description of the minerals which occur in each deposit. No attempt is made to explain the mode of geologic origin of the deposits, because this would be beyond the scope of this publication.

In many cases the descriptions are accompanied by county highway maps with the localities lettered on the maps. Due to the short time allotted to this project, it was impossible to field-check many of the localities and the author had to rely on information supplied by collectors. Generally speaking, the deposits are located within a fair degree of accuracy and most of the minerals found at each deposit are included in the description.

Mineral Resources and Mineral Industries of Quebec Province, Canada

Profusely illustrated, 75 pp. Published by the Department of Mines, Quebec, Que., Canada.

This publication has been prepared to present to the general public a broad overall picture of the mineral industries in the Province of Quebec. The material has been compiled for the most part from published reports of the Quebec Department of Mines.

Science Reports of the Tohoku University, Sendai, Japan

This is a most interesting publication (all in English) on mineralogy, petrology and economic geology. It is Vol. VI, No. 1 (March 1958)—167 pp. 13 pls., 24 figs. Published by Dept. of Geology, Tohoku University, Sendai, Japan.

The contents of this volume are:

On Cubanite in Japan, by Tsunehiko Takeuchi and Matsuo Nambu.

The non-hydrocarbon constituents of the Resource Rocks of Petroleum, by Iwao Kato and Masahiko Abe.

Some Pegmatite Minerals from the Southern Inner Mongolia, by Keiichi Omori.

Chemical Studies of Allanites from the New Localities in Fukushima and Kagawa. Prefectures, by Shuzo Hasegawa.

On the Granitic Rocks of Mt. Otakine and its Adjacent Districts in the Abukuma Massif, Japan, by Tadamasa Sendo.

Age determination of some granite rocks in California

The ages of some granitic rocks in California have been measured by a method of radiogenic measurements, according to an announcement by Gordon B. Oakeshott, Chief of the California Division of Mines. Utilizing the potassium^{40} to argon^{40} radiogenic transformation, three geologists, G. H. Curtis, J. F. Evernden, and J. Lipson of the University of California at Berkeley, have determined that the age of the granitic rocks they sampled ranged from 77 million years to 143 million years.

In general, the rocks were from three groups. The most ancient group, including rocks from the Klamath Mountains and Sierran foothills, ranged in age from about 143 million to 131 million years. The second group, taken from the high Sierra Nevada, was found to be 77-95 million years old. The third group, representing Coast Ranges rocks, was measured to be 82-92 million years in age.

The data for these determinations, together with the conclusions of the authors as to the importance of these measurments in interpreting California geology, are incorporated in the latest publication of the Division of Mines, SPECIAL REPORT 54. Entitled "Age determination of some grani-

tic rocks in California by the potassium-argon method," the report, printed on 8½ x 11 inch format with a slick paper cover, sells for 50¢. For sale by the Division of Mines, Ferry Building, San Francisco 11, Calif.

Geology of Hanover Quadrangle, N. H.

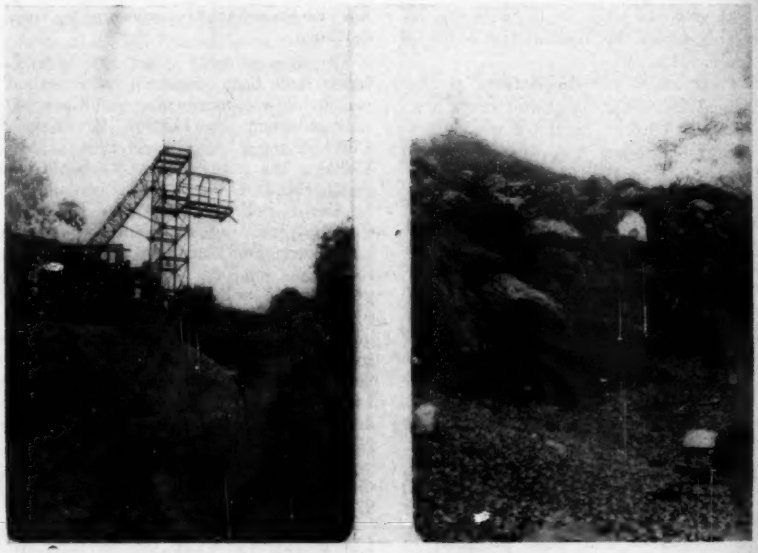
CONCORD, N. H.—The landscape, bedrock and mineral deposits of the area around Hanover, N. H. are interestingly discussed in a pamphlet recently published by the State Planning and Development Commission. Included is the geologic history of the region, going back about 300 to 450 million years, during which time the area was twice on the bottom of the ocean and once may have had peaks as high at Mt. Everest.

"*The Geology of the Hanover Quadrangle*" by John B. Lyons, represents the 18th quadrangle to be mapped and published as part of a continuing program sponsored by P & D and its Mineral Resources Committee. The program is designed to eventually cover the entire state.

The booklet contains 29 pages of text and illustrations and includes a colored map overprinted on the familiar U.S.G.S. quadrangle base showing the bedrock geology in detail. The map was printed in cooperation with the Geologic Society of America.

Well qualified in his subject the author, Dr. Lyons, has been professor of Geology at Dartmouth College for six years and is chairman of the State Mineral Resources Committee.

The booklet may be obtained for $1.00 by sending a money order or check, payable to the State of New Hampshire, to N. H. State Planning and Development Commission, State Office Building, Concord, New Hampshire. This is a "cost price". Money received from the sale of geological publications is used for publishing additional pamphlets in the series.



Black Jack Mine, Galena, Ill.

The Black Jack mine is one of the most famous of the lead-zinc mines around Galena, Joe Daviess Co., Ill. Fine specimens of cerussite, galena, marcasite, pyrite, and sphalerite have been found in this mine.

Photo, left, is a view of the mine; photo on right shows part of the mine dump.

WITH OUR ADVERTISERS

Conducted by James N. Bourne
c/o Rocks and Minerals. Box 29
Peekskill, N. Y.

Advertisers are cordially invited to submit News Items to this Department

A very interesting item re: to Miniature mineral specimens from Roy Plummer of Plummer's Minerals, 4720 Point Loma Ave., San Diego 7, Calif., reads as follows:

"Enclosed are a few samples of our Miniature mineral specimens. We started this idea out a few months ago and the acceptance has been really wonderful. Our current list of these miniatures offers a selection of over 100 varieties in stock. We offer them in a price selection of 25¢, 35¢ or 45¢ each and furnish sno-foam mount and identification card.

"To qualify for this group our specimens must nearly always be crystals in clusters or singles, hand picked for eye appeal and carefully packed for shipment.

"From the response we've received I'd say there are a whole lot of collectors that must have small specimens due to lack of space (ours are ½x½"), low price due to budget demands (ours are 25¢, 35¢, 45¢) and still want specimens that would be considered of choice quality.

"We are quite proud of the results obtained so far and the enclosed samples are gratis to give you an idea of what we are offering."

Note: Above specimens received from Mr. Plummer are of very good quality, attractive and just the right size for rockhounds and collectors with space problems. We thank Mr. Plummer for the very nice samples of Native copper-Campbell Shaft, Bisbee, Ariz.; hemimorphite-Mapimi, Durango, Mexico; rhodochrosite, Butte, Mont.; betafite-Bancroft, Ontario, Canada; vanadinite-Old Yuma Mine, Pima Co., Arizona; azurite/limonite-Zacatecas, Sonora, Mexico.

From Gordon and Florence Leavitt, proprietors of the Nutmeg Rock Shop we are pleased to pass along the following item of interest to their many rockhound friends:

"This will inform you that the Nutmeg Rock Shop formerly of Danbury, Conn., has moved to the site of an old marble cutting mill in South Dorset, Vermont.

"We are now open for business and will be delighted to see our many friends and all the rockhounds who are prospective friends in this new section.

"We have erected a large cabin with double the area available in Danbury. So come to South Dorset for machines, grits, slabs and a fine collection of minerals specimens."

Note: We wish the Leavitts all manner of success in their new location and urge all rockhounds to drop in on them when traveling in and around Vermont. A cordial welcome is in store for you.

John M. Wise, gemologist and lapidarist of 108 W. Fayette St., Baltimore 1, Md., and advertising in R&M as of late introduces himself to our readers with the following:

"We are manufacturers of solid gold jewelry, have our lapidary shops in Idar-Oberstein and import and export to all 4 corners of the world. As for our financial responsibilities we are rated Jewelers Board of Trade and Dun and Bradstreet. We specialize in giving the best personal attention to each and everyone of our customers and have been doing this ever since 1890. It is a family business with no outsiders employed in the management."

Note: We are also the recipient of a

sample specimen of Central American amber, 1 inch in size, honey-brown in color and of good quality from Mr. Wise, for whom we extend our thanks for his generosity. To our readers—For the best in personal attention as to your needs, contact John M. Wise and be satisfied.

Wesley A. Crozier, Co-Owner of The Monmouth Stamp, Coin and Mineral Shop, 60 Monmouth St., Red Bank, New Jersey, and advertising through our display section this issue forwards the following note for benefit of our readers:

"Our shop was established 5½ years ago and is a ground floor operation in a lively business district. We have always offered satisfaction or full refund. We have handled Mineralights & Estwing prospectors picks for several years, also sell mineral sets & literature including your "How to Collect Minerals."

"We have made an important acquisition of Franklin, N. J. specimens including zincite, willemite and franklinite and have chosen your magazine as an advertising medium."

Note: Perhaps our readers may be interested in purchasing some of these fine Franklin, N. J. minerals from the Monmouth Stamp, Coin and Mineral Shop. Look up their ad in our display section for details.

We are pleased to hear from Mr. & Mrs. John Roder, R 7, Box 114, Hot Springs, Ark., who are currently advertising "Rockhound car Plates" via the classified section of R&M. We would like to print the following note from Mrs. Roder:

"We have been in Florida for sometime and are now back living in Arkansas. We have a new supply of "Rockhound Car Plates" which are fadeproof, the same size as previous ones, 3 x 12 inches, red and white and quite attractive.

"They are priced to individuals at $1.00 p.p. Special prices to dealers in quantities. We welcome visitors to our home shop and display, including xls and whetstone (local material), Florida agatized coral, rough or polished, and lots of other items too numerous to mention including Florida shells."

Note: As a good many of our readers may be heading to Florida this coming winter, here's an opportunity to pick up your "Rockhound Car Plates" and visit with the Roder's at the same time. Very nice people, the Roders, so drop in and pay them a visit.

Another new advertiser with R&M with this issue is C. E. Laitsch, Prop., of The Minerals Company, 3540 Reeds Lake Blvd., Grand Rapids 6, Mich., who sends us the following introductory item re: to his company:

"Our company was formed about a year ago with several objectives in mind. Most important is our aim to bring to the "Rocks and Minerals" fraternity the benefits of some of the recent technological advances of which I, as a metallurgist, am so well aware, but which would not otherwise be available to the hobbyist or small user. After a year of tests and experiments, we now have several products which show great promise in this respect. We hope to announce these in the near future.

"A secondary purpose of our company is to offer to the public well authenticated mineral specimens, with emphasis on varieties from Michigan. These will be primarily for the collector, and will be accompanied by a data sheet of geological and mineralogical notes whereever possible. Typical are the marcasite "walnuts" being offered in the current ad. We are mailing two of these specimens to you with our compliments, under separate cover."

Note: We wish you well Mr. Laitsch and mention will be made of the marcasite "walnuts" elsewhere in R&M.

Again we hear from Harvey R. Shull, 1516 South Market, Oskaloosa, Iowa, who advertises regularly in R&M classified section. A note from Mr. Shull reads:

"During the past six weeks customers have kept me on the jump. They come from many states and a great many return year after year. Others return 3 or more times annually. One couple came from Detroit last week and said they has read my ads in ROCKS AND MINERALS for the first time over a year ago and finally arrived. Sold them a nice collection including wood specimens. I am getting excellent results from ads in R&M.

"I am not going away this year, just too busy. I have opened a new woodwork shop and having lots of fun."

Note: Mr. Shull is featuring many fine fluorescing woods cut and finished into many animal designs, such as horses, dogs, owls, snakes, totem poles etc. which will make ideal christmas gifts in both small and large sizes and priced from $5.00 to $60.00. So take a gander at Mr. Shull's two classifieds ads this issue and place your order for some of his expertly made christmas gifts in fluorescing wood.

Here's an item from Don Ward Minerals, 304 Catron, Santa Fe, New Mexico, re: to his latest price list just issued:

"Here is a special listing of fine and rare minerals from a locality in New Mexico from which few minerals have been seen in the past. This locality, Bingham, Socorro County, New Mexico, has over 40 different minerals, some of which I have not identified as yet. These minerals are high priced, but of outstanding quality, and when you see them you will find they are quite reasonable. All minerals are sold on consignment and may be returned if handled with care and properly repacked. For those interested—send for this latest mineral price list and have the opportunity to purchase some very fine New Mexico mineral specimens."

We are in receipt of the latest price list of selected mineral specimens from the Southeastern Mineral Company, P.O. Box 2537, Lakeland, Fla. "This price list is quite extensive with mineral specimens from almost all of our 48 states with localities named in all instances. Quite a few specimens from Austria, Canada, and Mexico as well. A good many of these specimens are very reasonably priced and of good size. So contact the Southeastern Mineral Company today as there may be quite a few specimens listed that you don't have to complete your own mineral collection. Our latest shell and fossil lists can also be had at your request."

From Paul Wood of P. W. Mfg. Co., Box 577, Canadian, Texas, we received a new "Rockhounds Hammer Holder."

"This new "Rockhounds Hammer Holder" is compact, all metal, and made to wear on one's belt. All rockhounds should own one as the necessity for carrying the hammer in your hand is eliminated by the use of the "Hammer Holder." Price is $1.00 postpaid and well worth the investment." Note the P. W. Mfg. Co. ad in our classified section of the Sept-Oct '58 issue on page 474. Thank you Mr. Wood for this useful gift.

TO OUR ADVERTISERS AND READERS—We sincerely hope that R&M in some way, however small, was instrumental in its effort to be of help to all of you during the past year and that we can increase this effort in the coming year. Our best wishes to each and everyone of you for a Merry Christmas and properous New Year.

—J. N. Bourne

TUMBLE POLISHED GEMSTONES
From the world over

We have what we believe to be the largest selection of the finest polished baroques available. We also carry a large stock of preforms.
DEALERS—Write for wholesale prices from our new price list.
"Satisfaction or money back guarantee."
When in Southern California visit our retail store and largest gemstone rock yard in the West.
NEW STORE HOURS: Week Days 8 A.M. to 6 P.M.—Saturdays 8 A.M. to 5 P.M.

San Fernando Valley Gem Co.

5905 Kester Avenue — *Van Nuys, California*

COLLECTORS ITEMS

1—Complete Ammonites.
2—Rare Cycad.
3—Original Sketches on moosehide by famous Alaska artist, Eskimo George A ka puk.
4—Genuine hand made Ivory jewelry etching on each piece by Eskimos. Some with gold nuggets and some without.
5—Rare Iris Agate.

MRS. RICHARD FISCHER
Box 555 — **Grand Junction, Colo.**

THE REAL DIFFERENT GEM ROUGH

Are you tired of the run-of-the-mill rough available? We stock many exciting new gem rough goods such as:

Labradorite—Moonstones
Blue Facet Sapphire
Star Black Sapphire
Spider-Web Turquoise
Green Apatite—facet quality
Extra Green Amazonite
Green Garnet Grosselarite—for Cabs.
Inexpensive facet **Morganites** and **Aquas**
Chatoyant Sunstone
Cacaxonite
Blue Chalcedony
Green Chrysophrase
Rutile Quartz—Thick or thin needles
Indicolite—for Cabs.
Natural Zircons
Preformed Blue Zircons
Rare Wood Matrix Opal—for Cabs.
Lazulite—Russia
Afghan Lapis Lazuli
Goldstone—in golden or blue colors

We stock many, many more items of all **professional** quality **grade** only.
Be sure to send 25¢ for our latest extensive catalog pertaining to above.

A. G. PARSER INC.
54 West 46th Street — **New York 36, N.Y.**
Phones CO 5-1605 — 5-1606 — 5-1607
To dealers—wholesale catalog available on letterhead, free

FINE CALCITE SPECIMENS

Some collected more than 100 years ago.

Locality uncertain. Scalenohedral xls averaging ½ inch. All showing opalescence on all crystal faces. On rock. 3½x6½x3, $20.00. A rare display specimen.

Freiberg, Saxony. Thin tabular plates made up of curved composite xls, like dolomite xls. On drusy quartz. 2x2½, $4.00.

Cumberland, England. Group pseudomorphous after witherite xls. 2½x3½, $6.00.
Tiny colorless modified xls, with sprinkling of chalcopyrite. Removed from face of large barite xl. 1¾x4, $3.50.
Group twinned scalenohedrons showing zoning. 2x3, $3.50.
Small composite curved rhombs arranged in rosettes. With pyrite on dolomite over hematite. 3x2½x2½, $5.00.
Clear scalenohedrons on galena. 2x3, $3.50.

Lancashire, England. Group scalenohedrons averaging ½ to ¾ inch, all showing phantoms. Group of about 200 xls. 5x7x3, $25.00.

Oberstein, Palatinate, Germany. Group prismatic xls, coated with iron oxide. An interesting locality specimen. 3x3½, $3.00.

Guanajuata, Mexico. Modified rhombs with laumantite. On rock. 3x3, $3.50.
Tabular xls partly coated with drusy quartz. 3x6, $5.00.
Twinned xls, broken at base. From 1½x1½ to 2x2½, 75¢, $1.00, $1.50.

Potosi, Bolivia. Group large spheres made up of small rhombs. 2x3, $3.00.

Cornwall, England. White tabular xls showing basal plane. On rock. Choice. 3½x4, $7.50.

Colorado. Pink colored translucent modified xls. 2x3, $3.00.

Tsumeb, S.W. Africa. Modified striated xls with inclusions of malachite. 2x2, $4.50.

Andreasburg, Harz, Germany. Hexagonal xls on rock. 1½x2, $1.75.
Modified xls with inclusions. On siderite. 2x3, $5.00.
Group tabular xls, no rock. Very fragile. 3x2½, $4.00.

Bisbee, Arizona. Stalactites made up of thin tabular xls, some tinted pink to brown by iron oxide. All choice specimens. 1½x2 to 2½x3½, $1.00, $1.50, $2.00, $2.50, $3.00.

Michigan. Several dozen specimens of calcite xls with native copper inclusions. Groups small xls on rock. Some with native copper, epidote, etc. 4x5 to 2x2, $7.50, $6.50, $6.00, $5.00, $4.00, $3.00, $2.00, $1.50. A few hundred xls, from 1x1½ to ½x½, removed from matrix, all showing native copper inclusions. Priced according to quality, $5.00 to 25¢.

Hundreds of calcite specimens from all parts of the world. Inquiries invited.

Please include parcel post charges with order. Excess will be refunded.

JOHN S. ALBANESE

Fine Minerals

P.O. Box 221 **Union, New Jersey**

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